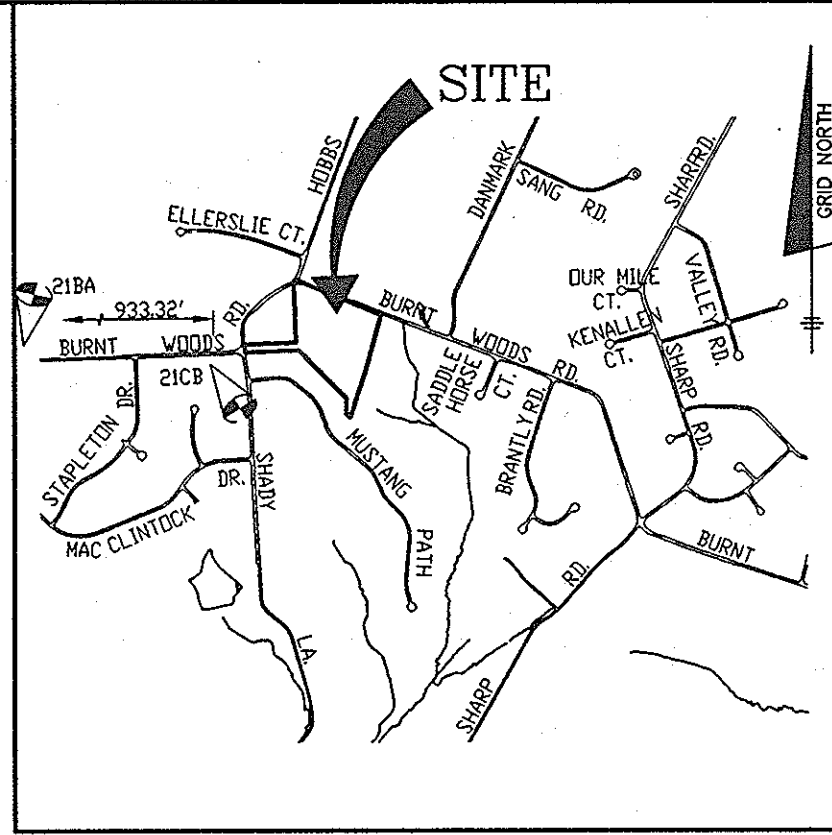


SHEET INDEX	
NO.	TITLE
1	TITLE SHEET
2	GRADING, SEDIMENT AND EROSION CONTROL PLAN
3	GRADING, SEDIMENT AND EROSION CONTROL PLAN
4	SEDIMENT AND EROSION CONTROL NOTES, DETAILS AND BORINGS
5	STORM DRAIN DRAINAGE AREA MAP AND PROFILES
6	LANDSCAPE PLAN
7	SWM DETAILS - FACILITY #1
8	FOREST CONSERVATION PLAN
9	PERCOLATION CERTIFICATION PLAN

NESHAWAT PROPERTY

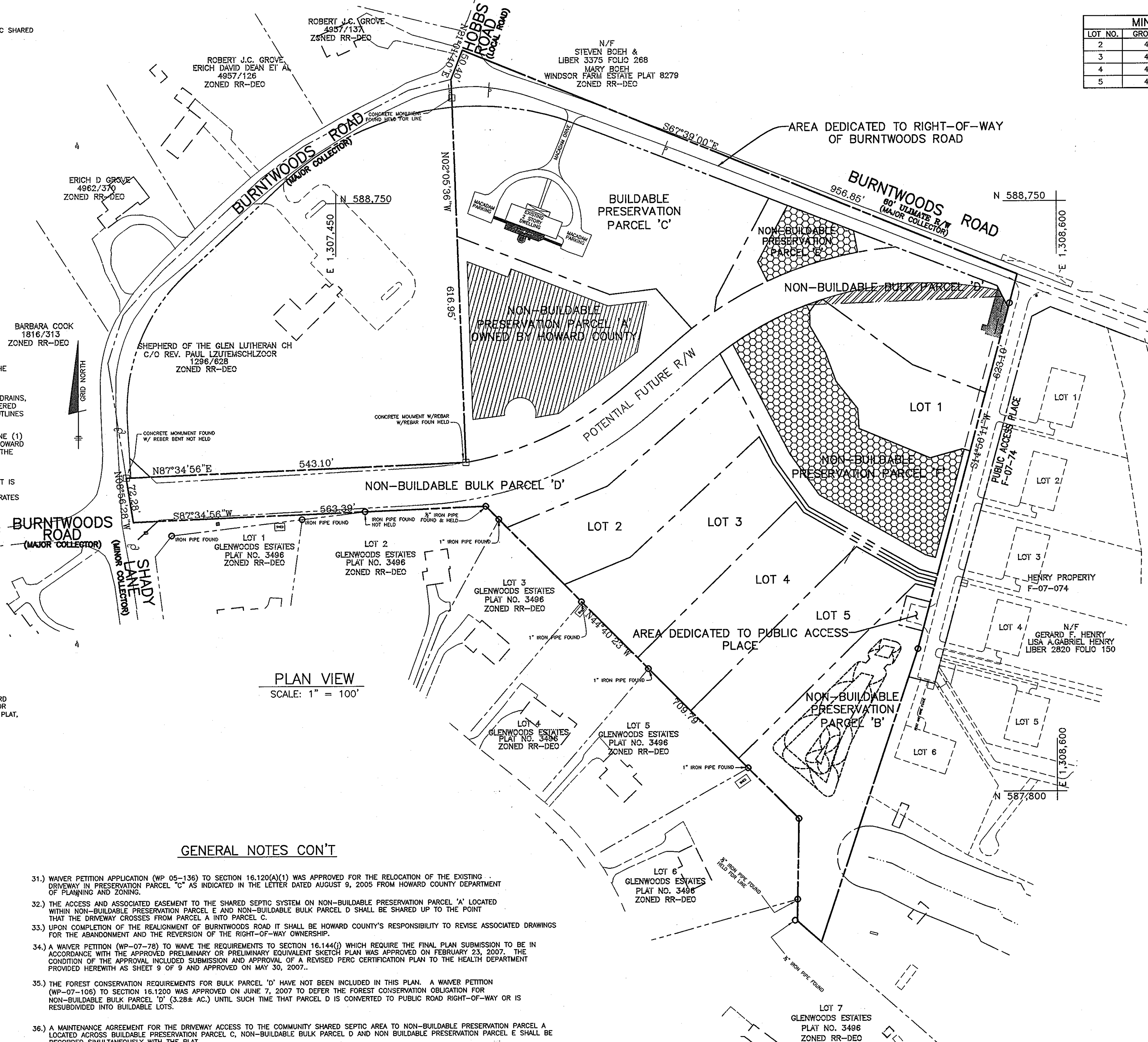
LOTS 1-5, NON-BUILDABLE PRESERVATION PARCELS A, B, E & F, NON-BUILDABLE BULK PARCEL D AND BUILDABLE PRESERVATION PARCEL C

BENCHMARKS NAD'83 HORIZONTAL	
HO.CO. #210B STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE N 588188.043' E 1306716.629'	
HO. CO. #218A STAMPED BRASS DISK SET ON TOP OF CONCRETE BASE N 588125.184' E 1303655.353'	



MINIMUM LOT SIZE CHART			
LOT NO.	GROSS AREA	PIPESTEM AREA	MINIMUM LOT SIZE
2	48,399	2,245	46,154
3	48,577	1,557	47,020
4	44,480	833	43,647
5	42,448	172	42,276

- GENERAL NOTES**
- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS.
 - THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH 2-FOOT CONTOUR INTERVALS PREPARED BY BENCHMARK ENGINEERING INC. ON OR ABOUT NOVEMBER 2003.
 - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODESIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 218A AND 212C WERE USED FOR THIS PROJECT.
 - WATER IS PRIVATE.
 - SEWER IS PRIVATE FOR LOT 2 AND BUILDABLE PRESERVATION PARCEL 'C'. SEWER FOR LOTS 1 AND 3 THROUGH 5 WILL BE A PUBLIC SHARED SEPTIC IN NON-BUILDABLE PRESERVATION PARCEL 'A' WITH PRIVATELY OWNED PRETREATMENT TANKS.
 - STORMWATER MANAGEMENT SHALL BE PROVIDED BY AN EXTENDED DETENTION POND WITH MICRO-POOL AND A GRASSED SWALE. THE FACILITIES SHALL BE JOINTLY MAINTAINED BY THE HOMEOWNERS ASSOCIATION AND HOWARD COUNTY AND LOCATED WITHIN NON-BUILDABLE PRESERVATION PARCEL 'A'.
 - EXISTING UTILITIES ARE BASED UPON FIELD SURVEY LOCATIONS.
 - THERE IS NO FLOODPLAIN ON THIS SITE.
 - THE WETLANDS DELINEATION FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE PROFESSIONALS INC. IN JANUARY 2004.
 - A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
 - THE GEOTECHNICAL REPORT FOR THIS PROJECT WAS PREPARED BY HILLIS CARNES ENGINEERING ASSOCIATES, INC. DATED SEPTEMBER 27, 2004. ADDITIONAL BORINGS B-7 AND B-8 WERE CONDUCTED ON JANUARY 10, 2007.
 - THE SUBJECT PROPERTY IS ZONED RR-DEO PER THE 2-2-04 COMPREHENSIVE ZONING PLAN AND THE COMP LITE AMENDMENT EFFECTIVE 7-28-2006. ALL ADJACENT PROPERTIES ARE ZONED RR-DEO.
 - TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO BURIAL GROUNDS OR CEMETERIES LOCATED ON THIS SITE.
 - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAM(S) OR THEIR REQUIRED BUFFERS, FLOODPLAINS OR FOREST CONSERVATION EASEMENT AREAS.
 - BOUNDARY IS BASED ON A FIELD RUN BOUNDARY SURVEY PERFORMED DURING NOVEMBER, 2003 BY BENCHMARK ENGINEERING INC.
 - FOREST STAND DELINEATION WAS PREPARED BY ECO-SCIENCE PROFESSIONALS IN SEPTEMBER, 2004.
 - THIS PROJECT IS NOT LOCATED WITHIN THE METROPOLITAN DISTRICT.
 - THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS PER COUNCIL BILL NO. 45-2003 AND THE ZONING REGULATIONS AS AMENDED BY COUNCIL BILL NO. 75-2003. DEVELOPMENT OR CONSTRUCTION MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE BUILDING OR GRADING PERMIT APPLICATION.
 - THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10,000 SQUARE FEET AS REQUIRED BY THE STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA IS RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDED OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE NECESSARY.
 - THE PURPOSE OF THE PRESERVATION PARCELS IS AS FOLLOWS:
PRESERVATION PARCEL 'A' IS PROPOSED AS A NON-BUILDABLE PARCEL THAT SHALL INCLUDE BUT NOT BE LIMITED TO THE COMMUNITY SEPTIC AREA AND ACCESS EASEMENTS. IT WILL BE OWNED BY HOWARD COUNTY. IT IS ENCUMBERED BY AN EASEMENT AGREEMENT WITH THE HOMEOWNERS ASSOCIATION. THIS AGREEMENT PROHIBITS FURTHER SUBDIVISION OF THE PARCEL, OUTLINES THE MAINTENANCE RESPONSIBILITIES OF ITS OWNER AND ENUMERATES THE USES PERMITTED ON THE PROPERTY.
PRESERVATION PARCEL 'B' IS PROPOSED AS NON-BUILDABLE PARCEL THAT SHALL INCLUDE BUT NOT BE LIMITED TO STORM DRAINS, UTILITY EASEMENTS AND STORM WATER MANAGEMENT. IT WILL BE OWNED BY THE HOMEOWNERS ASSOCIATION. IT IS ENCUMBERED BY AN EASEMENT AGREEMENT WITH HOWARD COUNTY. THIS AGREEMENT PROHIBITS FURTHER SUBDIVISION OF THE PARCEL, OUTLINES THE MAINTENANCE RESPONSIBILITIES OF ITS OWNER AND ENUMERATES THE USES PERMITTED ON THE PROPERTY.
PRESERVATION PARCEL 'C' IS PROPOSED AS BUILDABLE PRESERVATION PARCEL. ONE (1) HOUSING ALLOCATION ALLOWING ONE (1) BUILDABLE UNIT SHALL BE UTILIZED. IT WILL BE PRIVATELY OWNED. IT IS ENCUMBERED BY AN EASEMENT AGREEMENT WITH HOWARD COUNTY AND THE HOMEOWNERS ASSOCIATION. THIS AGREEMENT PROHIBITS FURTHER SUBDIVISION OF THE PARCEL, OUTLINES THE MAINTENANCE RESPONSIBILITIES OF ITS OWNER AND ENUMERATES THE USES PERMITTED ON THE PROPERTY.
PRESERVATION PARCEL 'E' IS PROPOSED AS NON-BUILDABLE PARCEL THAT SHALL INCLUDE BUT NOT BE LIMITED TO STORM DRAINS, DRAINAGE EASEMENTS, UTILITY EASEMENTS AND FOREST CONSERVATION EASEMENTS. IT WILL BE PRIVATELY OWNED. IT IS ENCUMBERED BY AN EASEMENT AGREEMENT WITH HOWARD COUNTY AND THE HOMEOWNERS ASSOCIATION. THIS AGREEMENT PROHIBITS FURTHER SUBDIVISION OF THE PARCEL, OUTLINES THE MAINTENANCE RESPONSIBILITIES OF ITS OWNER AND ENUMERATES THE USES PERMITTED ON THE PROPERTY.
PRESERVATION PARCEL 'F' IS PROPOSED AS NON-BUILDABLE PARCEL THAT SHALL INCLUDE BUT NOT BE LIMITED TO STORM DRAINS, DRAINAGE EASEMENTS, UTILITY EASEMENTS AND FOREST CONSERVATION EASEMENTS. IT WILL BE PRIVATELY OWNED. IT IS ENCUMBERED BY AN EASEMENT AGREEMENT WITH HOWARD COUNTY AND THE HOMEOWNERS ASSOCIATION. THIS AGREEMENT PROHIBITS FURTHER SUBDIVISION OF THE PARCEL, OUTLINES THE MAINTENANCE RESPONSIBILITIES OF ITS OWNER AND ENUMERATES THE USES PERMITTED ON THE PROPERTY.
NON-BUILDABLE BULK PARCEL 'D' HAS BEEN CREATED IN ORDER TO ALLOW FOR THE POTENTIAL FUTURE RE-ALIGNMENT OF BURNTWOODS ROAD. AS AN ALTERNATE THIS PARCEL MAY BE SUBDIVIDED IN THE FUTURE TO POTENTIALLY HOLD TWO BUILDABLE LOTS. IF THIS AREA IS UTILIZED FOR BUILDABLE LOTS, DENSITY WOULD BE REQUIRED TO SUPPORT THE NEW LOTS.
 - FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1202 OF THE FOREST CONSERVATION MANUAL OF 2.76 ACRES OF REQUIRED AFForestation SHALL BE FULFILLED BY THE PLACEMENT OF 1.57 ACRES OF PLANTINGS INTO EASEMENT AREAS AND THE PAYMENT OF A FEE-IN-LIEU FOR THE REMAINDER OF 1.19 ACRES OF \$38,877.30 (\$1,636.40 x \$23,750) TO THE FOREST CONSERVATION FUND. SURETY FOR 1.57 ACRES OF AFForestation (\$8,382.00 x \$50.50) IN THE AMOUNT OF \$34,194.60 SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT UNDER THIS FINAL PLAN, F-07-121. THE AREA OF THE FUTURE ROW OF BURNTWOODS ROAD (NON-BUILDABLE BULK PARCEL D) OF 3.28 ACRES HAS BEEN DEDUCTED FROM FC OBLIGATIONS IN ACCORDANCE WITH THE DECISION OF WP-07-106. FOREST CONSERVATION OBLIGATIONS ON THIS AREA WILL BE FULFILLED AT THE TIME OF ANY FUTURE SUBDIVISION OF NON-BUILDABLE BULK PARCEL D.
 - PERMETER AND STORM WATER MANAGEMENT LANDSCAPING SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL AS SHOWN ON THE LANDSCAPE PLAN SHEET OF THE ROAD CONSTRUCTION DRAWINGS FOR THIS PROJECT. SURETY IN THE AMOUNT OF \$24,000.00 SHALL BE PROVIDED WITH THE DEVELOPER'S AGREEMENT UNDER THIS FINAL PLAN, F-07-121. STREET TREES FOR PUBLIC ACCESS PLACE SHALL BE PROVIDED UNDER F-07-74.
 - WELLS SHALL BE PLACED AT THE FURTHEST PORTION OF THE WELL BOX. MAINTAIN 15' OF SEPARATION FROM ROADS AND R/W.
 - WELLS SHALL BE DRILLED BY A CERTIFIED WELL DRILLER PRIOR TO RECORD PLAT SUBMISSION FOR SIGNATURE PER HOWARD COUNTY HEALTH DEPARTMENT REQUIREMENTS. IT WILL NOT BE CONSIDERED TO BE GOVERNMENTAL DELAY IF THE WELLS ARE NOT COMPLETED PRIOR TO THE SUBMISSION'S MILESTONE DATE. PRIOR TO DRILLING OF THE WELLS FOR LOTS 3, 4 AND 5 THE WELL DRILLER SHALL CONTACT HOWARD COUNTY DEPARTMENT OF HEALTH TO SCHEDULE AN ON-SITE MEETING TO VERIFY THE LOCATION OF THE PROPOSED WELLS. WELL # 24-32268 SHALL BE ABANDONED PRIOR TO CONSTRUCTION BY A CERTIFIED WELL DRILLER PER HOWARD COUNTY HEALTH DEPARTMENT REQUIREMENTS.
 - THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
 - DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
A) WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE).
B) SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING.
C) GEOMETRY - MAX. 15% GRADE CHANGE & MIN. 45' TURNING RADIUS.
D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (M25 LOAD).
E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY.
F) STRUCTURE CLEARANCES - MINIMUM 12 FEET.
G) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.
 - THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY LEE CUNNINGHAM AND ASSOC., INC. DATED JUNE, 2004.
 - LOTS 1-5 WILL DERIVE ACCESS ONTO THE PUBLIC ACCESS PLACE OF THE ADJOINING MAPLEWOOD FARMS (F-07-74).
 - THERE IS AN EXISTING RESIDENCE WHICH IS TO REMAIN LOCATED ON BUILDABLE PRESERVATION PARCEL C.
 - THE SHARED SEPTIC SYSTEM IS SUBJECT TO HEALTH DEPARTMENT REQUIREMENTS AND ACCEPTANCE BY THE DEPARTMENT OF PUBLIC WORKS.



LEGEND

EXISTING CONTOURS	999
PROPOSED CONTOURS	999
LIMIT OF WETLANDS	999
EXISTING WOODS LINE	999
EXISTING STRUCTURE	999
PROPOSED STRUCTURE	999
FOREST CONSERVATION EASEMENT	999
PUBLIC SEWER, WATER AND UTILITY EASEMENT	999
RIP-RAP	999
EROSION CONTROL MATTING	999
USE-IN-COMMON EASEMENT (LOTS 2-5)	999
SIGHT DISTANCE EASEMENT	999

SITE ANALYSIS DATA CHART

GENERAL SITE DATA

- PRESENT ZONING: RR-DEO
- APPLICABLE DPZ FILE REFERENCES: SP-05-05, WP-05-138, WP-07-106
- PROPOSED USE OF SITE: RESIDENTIAL (SPD)
- PROPOSED WATER AND SEWER SYSTEMS: PRIVATE

AREA TABULATION

- GROSS TRACT AREA: 17.07±
- AREA WITHIN 100-YEAR FLOODPLAIN: 0.00 AC±
- TOTAL AREA OF 25% OR GREATER STEEP SLOPES: 0.00 AC±
- AREA NOT IN FLOODPLAIN (FOR NTA CALC): 0.00 AC±
- NET TRACT AREA: 17.07 AC±
- TOTAL NUMBER OF LOTS ALLOWED PER ZONING: 4
- 1 UNIT PER 4.25 GROSS ACRES
- 1 UNIT PER 2 NET ACRES (MAX)
- TOTAL NUMBER OF RESIDENTIAL UNITS/LOTS PROPOSED ON THIS SUBMISSION: 6
- AREA OF CLUSTER LOTS: 4.99 AC±
- AREA OF NON-BUILDABLE PRESERVATION PARCELS: 5.38 AC±
- AREA OF BUILDABLE PRESERVATION PARCELS: 2.38 AC±
- AREA OF NON-BUILDABLE BULK PARCELS: 3.28 AC±
- AREA OF BUILDABLE BULK PARCELS: N/A
- AREA OF ROAD RIGHT-OF-WAY: 0.94 AC±
- OPEN SPACE ON-TOTAL SITE: N/A
- AREA OF RECREATIONAL OPEN SPACE REQUIRED: N/A

OVERALL DENSITY EXCHANGE CHART

GROSS AREA	17.07 AC±
NET TRACT AREA	17.07 AC± (SEE AREA TABULATION THIS SHEET)
DWELLING UNITS ALLOWED (as matter of right)	17.07 AC± @ 1 DU per 4.25 GROSS ACRES = 4
MAXIMUM DWELLING UNITS ALLOWED	17.07 AC± @ 1 DU per 2.00 NET ACRES = 8
PROPOSED DWELLING UNITS	5 + 1 EXISTING DWELLING = 6
NUMBER OF DEO UNITS TO BE RECEIVED	6 - 4 (base density) = 2
SENDING PARCEL INFORMATION	
SUBDIVISION NAME:	PARKER PROPERTY
TAX MAP:	15 GRID: 10
PARCEL:	17

- GENERAL NOTES CON'T**
- WAIVER PETITION APPLICATION (WP 05-136) TO SECTION 16.120(A)(1) WAS APPROVED FOR THE RELOCATION OF THE EXISTING DRIVEWAY IN PRESERVATION PARCEL 'C' AS INDICATED IN THE LETTER DATED AUGUST 9, 2005 FROM HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 - THE ACCESS AND ASSOCIATED EASEMENT TO THE SHARED SEPTIC SYSTEM ON NON-BUILDABLE PRESERVATION PARCEL 'A' LOCATED WITHIN NON-BUILDABLE PRESERVATION PARCEL E AND NON-BUILDABLE BULK PARCEL D SHALL BE SHARED UP TO THE POINT THAT THE DRIVEWAY CROSSES FROM PARCEL A INTO PARCEL C.
 - UPON COMPLETION OF THE REALIGNMENT OF BURNTWOODS ROAD IT SHALL BE HOWARD COUNTY'S RESPONSIBILITY TO REVERSE ASSOCIATED DRAWINGS FOR THE ABANDONMENT AND THE REVERSION OF THE RIGHT-OF-WAY OWNERSHIP.
 - A WAIVER PETITION (WP-07-78) TO WAIVE THE REQUIREMENTS TO SECTION 16.144(I) WHICH REQUIRE THE FINAL PLAN SUBMISSION TO BE IN ACCORDANCE WITH THE APPROVED PRELIMINARY OR PRELIMINARY EQUIVALENT SKETCH PLAN WAS APPROVED ON FEBRUARY 23, 2007. THE CONDITION OF THE APPROVAL INCLUDED SUBMISSION AND APPROVAL OF A REVISED PERC CERTIFICATION PLAN TO THE HEALTH DEPARTMENT PROVIDED HERETHIN AS SHEET 9 OF 9 AND APPROVED ON MAY 30, 2007.
 - THE FOREST CONSERVATION REQUIREMENTS FOR BULK PARCEL 'D' HAVE NOT BEEN INCLUDED IN THIS PLAN. A WAIVER PETITION (WP-07-106) TO SECTION 16.1200 WAS APPROVED ON JUNE 7, 2007 TO DEFER THE FOREST CONSERVATION OBLIGATION FOR NON-BUILDABLE BULK PARCEL 'D' (3.28± AC.) UNTIL SUCH TIME THAT PARCEL D IS CONVERTED TO PUBLIC ROAD RIGHT-OF-WAY OR IS RESUBDIVIDED INTO BUILDABLE LOTS.
 - A MAINTENANCE AGREEMENT FOR THE DRIVEWAY ACCESS TO THE COMMUNITY SHARED SEPTIC AREA TO NON-BUILDABLE PRESERVATION PARCEL A, NON-BUILDABLE BULK PARCEL D AND NON-BUILDABLE PRESERVATION PARCEL E SHALL BE RECORDED SIMULTANEOUSLY WITH THIS PLAN.
 - BASED ON PERMIT WMA NO. 07-YP-0053 WITH TRACKING NO. 200761835 AND LETTER DATED JUNE 12, 2007, ALTHOUGH THE POND IS LOCATED WITHIN A USE III WATERSHED IT IS NOT DEEMED A WET POND BY MDE AND DOES NOT CAUSE DETRIMENTAL THERMAL IMPACTS TO THE USE III WATERS. MDE INDICATED THAT BASED ON THE DRAINAGE AREA AND HEIGHT OF EMBANKMENT THE PROJECT QUALIFIES FOR EXEMPTION.

APPROVED: DEPARTMENT OF PUBLIC WORKS

William F. M... 9-10-07
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

C... 8/18/07
CHIEF, DIVISION OF LAND DEVELOPMENT

... 8/14/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION

SWM FACILITY #1

STORAGE	STORAGE ELEVATION
W ₀	564.63
C ₀	565.83
100 TR	566.01

BENCHMARK ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE SUITE 418
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644
www.bei-civilengineering.com

OWNER: GHASSANI NESHAWAT
14445 BURNTWOODS ROAD
GLENWOOD, MD 21738-9530

DEVELOPER: BURNTWOODS, L.L.C.
P.O. BOX 417
ELLCOTT CITY, MD 21041-0417
(410) 465-4244

PROJECT: NESHAWAT PROPERTY
LOTS 1 TO 5, NON-BUILDABLE PRESERVATION PARCELS A, B, E & F, NON-BUILDABLE BULK PARCEL D AND BUILDABLE PRESERVATION PARCEL C

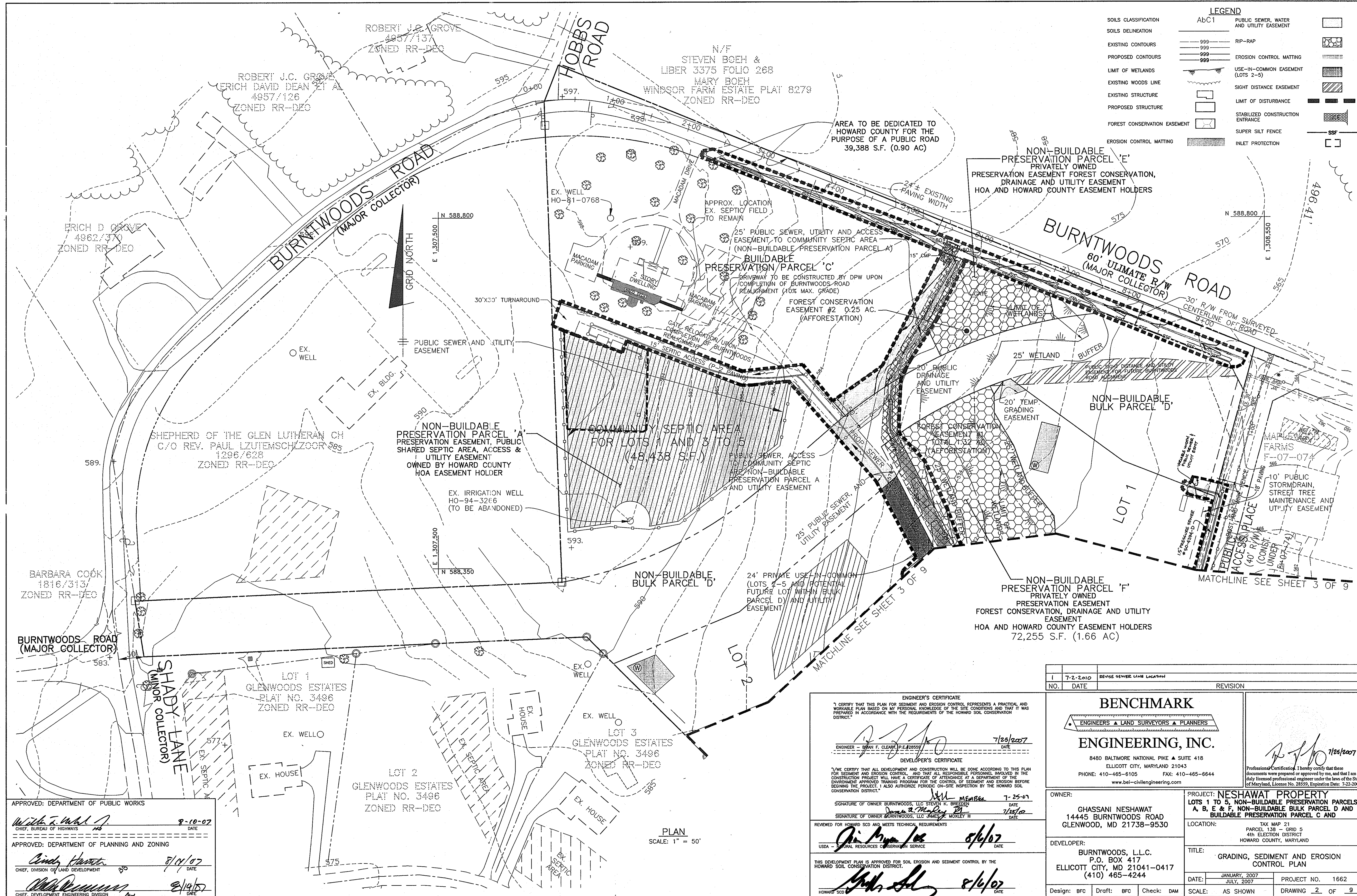
LOCATION: TAX MAP 21
PARCEL 138 - GRID 5
4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: TITLE SHEET

DATE: JANUARY, 2007 PROJECT NO. 1662
JULY, 2007

SCALE: AS SHOWN DRAWING 1 OF 9

Design: BFC Draft: BFC Check: DAM



LEGEND

SOILS CLASSIFICATION	AbC1	PUBLIC SEWER, WATER AND UTILITY EASEMENT	[Symbol]
SOILS DELINEATION	[Symbol]	RIP-RAP	[Symbol]
EXISTING CONTOURS	999	EROSION CONTROL MATTING	[Symbol]
PROPOSED CONTOURS	999	USE-IN-COMMON EASEMENT (LOTS 2-5)	[Symbol]
LIMIT OF WETLANDS	[Symbol]	SIGHT DISTANCE EASEMENT	[Symbol]
EXISTING WOODS LINE	[Symbol]	LIMIT OF DISTURBANCE	[Symbol]
EXISTING STRUCTURE	[Symbol]	STABILIZED CONSTRUCTION ENTRANCE	[Symbol]
PROPOSED STRUCTURE	[Symbol]	SUPER SILT FENCE	[Symbol]
FOREST CONSERVATION EASEMENT	[Symbol]	INLET PROTECTION	[Symbol]
EROSION CONTROL MATTING	[Symbol]		

APPROVED: DEPARTMENT OF PUBLIC WORKS
Walter F. Mohr, Jr. 8-10-07
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cindy Hunter 8/14/07
 CHIEF, DIVISION OF LAND DEVELOPMENT

John Demmer 8/14/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

PLAN
 SCALE: 1" = 50'

ENGINEER'S CERTIFICATE
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

ENGINEER - *Brian F. Cleary* P.E. 28559 7/25/2007
 DATE

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF OWNER BURNWOODS, LLC STEVEN K. BREEDEN 7-25-07
 DATE

SIGNATURE OF OWNER BURNWOODS, LLC JAMES P. MORTLEY III 7/25/07
 DATE

REMOVED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
John P. ... 8/6/07
 DATE

USDA - RURAL RESOURCES CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
John P. ... 8/6/07
 DATE

NO.	DATE	REVISION
1	7-2-2010	REVERSE SEWER LINE LOCATION

BENCHMARK ENGINEERING, INC.
 ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE • SUITE 418
 ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-8105 FAX: 410-465-8644
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PROJECT: NESHAWAT PROPERTY
 LOTS 1 TO 5, NON-BUILDABLE PRESERVATION PARCELS A, B, E & F, NON-BUILDABLE BULK PARCEL D AND BUILDABLE PRESERVATION PARCEL C AND

LOCATION: TAX MAP 21
 PARCEL 138 - GRID 5
 4th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: GRADING, SEDIMENT AND EROSION CONTROL PLAN

DATE: JANUARY, 2007
 JULY, 2007

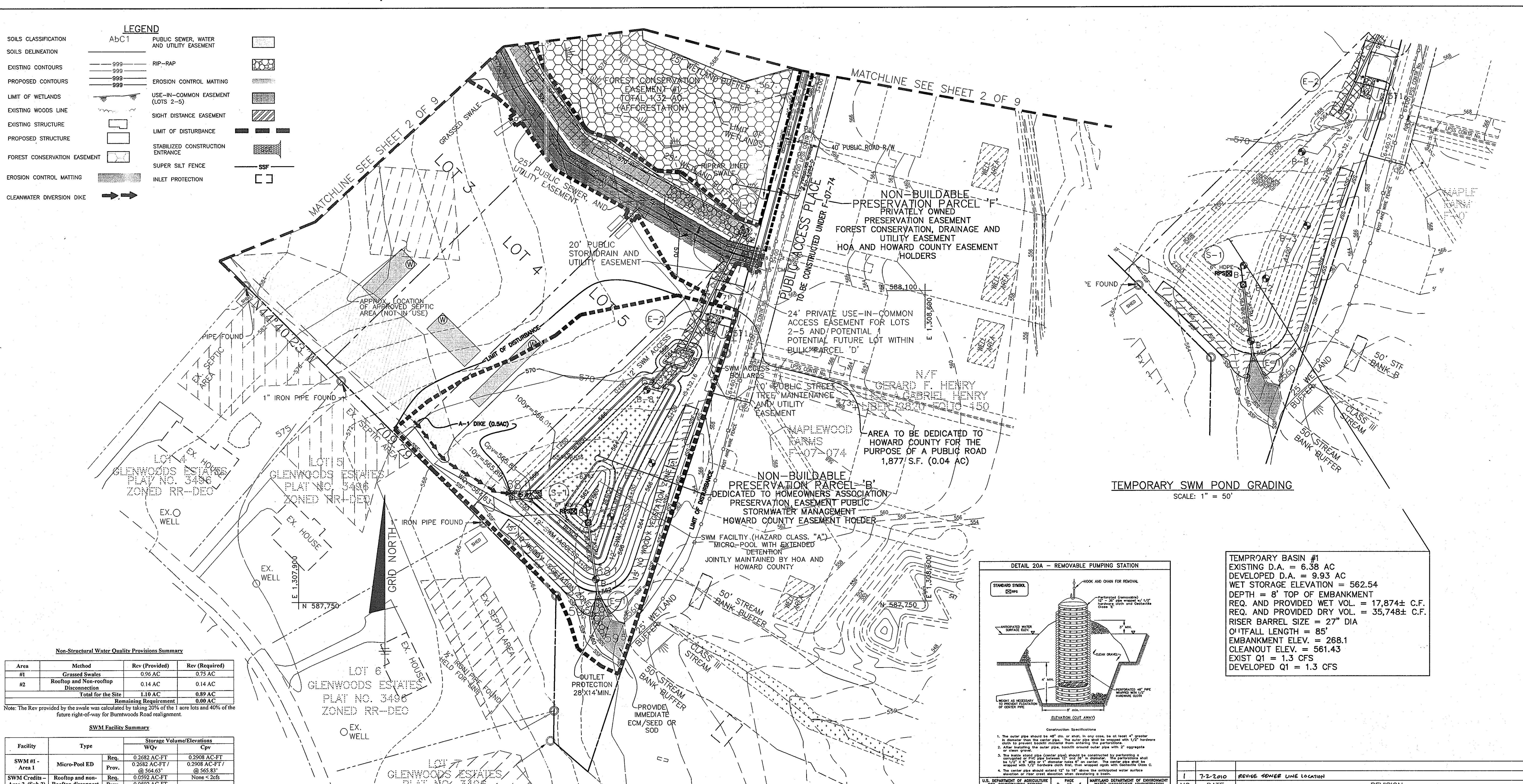
PROJECT NO. 1662

SCALE: AS SHOWN DRAWING 2 OF 9

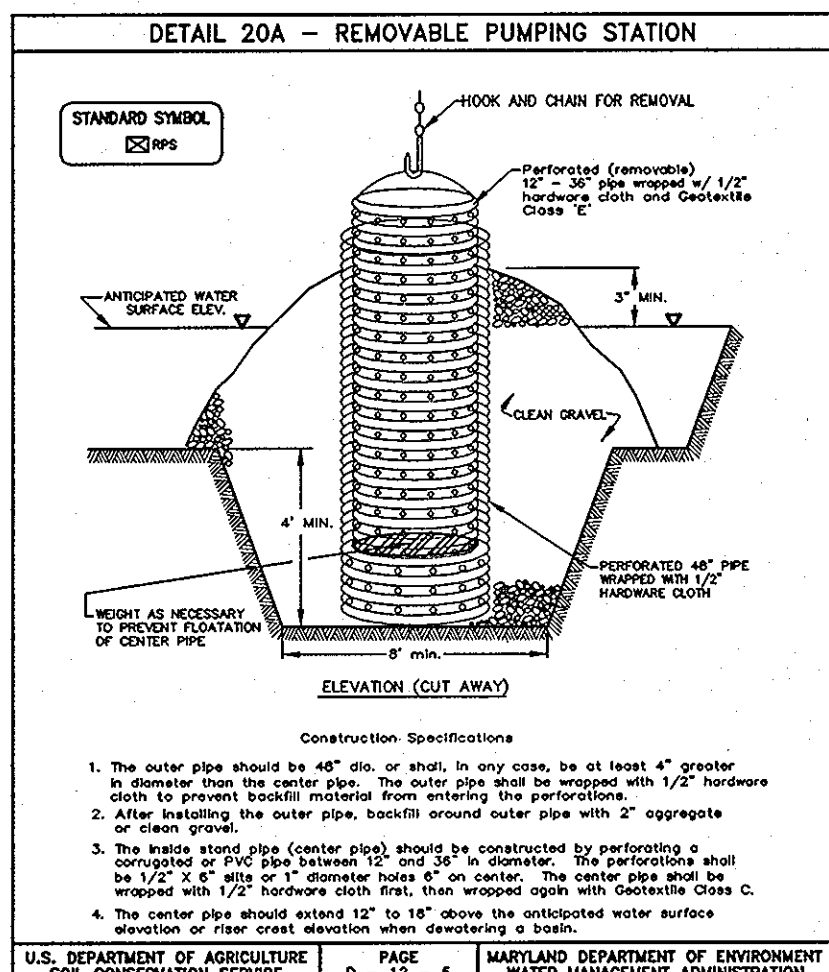
Design: BFC Draft: BFC Check: DAM

LEGEND

SOILS CLASSIFICATION	AbC1	PUBLIC SEWER, WATER AND UTILITY EASEMENT	
SOILS DELINEATION		RIP-RAP	
EXISTING CONTOURS	999	EROSION CONTROL MATTING	
PROPOSED CONTOURS	999	USE-IN-COMMON EASEMENT (LOTS 2-5)	
LIMIT OF WETLANDS		SIGHT DISTANCE EASEMENT	
EXISTING WOODS LINE		LIMIT OF DISTURBANCE	
EXISTING STRUCTURE		STABILIZED CONSTRUCTION ENTRANCE	
PROPOSED STRUCTURE		SUPER SILT FENCE	
FOREST CONSERVATION EASEMENT		INLET PROTECTION	
EROSION CONTROL MATTING			
CLEANWATER DIVERSION DIKE			



TEMPORARY SWM POND GRADING
SCALE: 1" = 50'



TEMPORARY BASIN #1
EXISTING D.A. = 6.38 AC
DEVELOPED D.A. = 9.93 AC
WET STORAGE ELEVATION = 562.54
DEPTH = 8' TOP OF EMBANKMENT
REQ. AND PROVIDED WET VOL. = 17,874± C.F.
REQ. AND PROVIDED DRY VOL. = 35,748± C.F.
RISER BARREL SIZE = 27" DIA
OUTFALL LENGTH = 85'
EMBANKMENT ELEV. = 268.1
CLEANOUT ELEV. = 561.43
EXIST Q1 = 1.3 CFS
DEVELOPED Q1 = 1.3 CFS

Non-Structural Water Quality Provisions Summary

Area	Method	Rev (Provided)	Rev (Required)
#1	Grassed Swales	0.96 AC	0.75 AC
#2	Rooftop and Non-rooftop Disconnection	0.14 AC	0.14 AC
Total for the Site		1.10 AC	0.89 AC
		Remaining Requirement	0.00 AC

Note: The Rev provided by the swale was calculated by taking 20% of the 1 acre lots and 40% of the future right-of-way for Burntwoods Road realignment.

SWM Facility Summary

Facility	Type	Storage Volume/Elevations	
		WQv	Cpv
SWM #1 - Area 1	Micro-Pool ED	Req. 0.2682 AC-FT	0.2908 AC-FT
		Prov. 0.2682 AC-FT / @ 564.63'	0.2908 AC-FT / @ 565.83'
SWM Credits - Area 2 (Sub 2)	Rooftop and non-rooftop disconnect	Req. 0.0592 AC-FT	None < 2cfs
		Prov. 0.0592 AC-FT	
Total Provided		0.3274 AC-FT	0.2908 AC-FT
Total Required		0.3274 AC-FT	0.2908 AC-FT
Remaining		0.0 AC-FT	0.0 AC-FT

Note: The channel protection and water quality control are address fully with SWM Facility #1 and disconnection credit (Refer to drainage map for water quality for the disconnection detail).

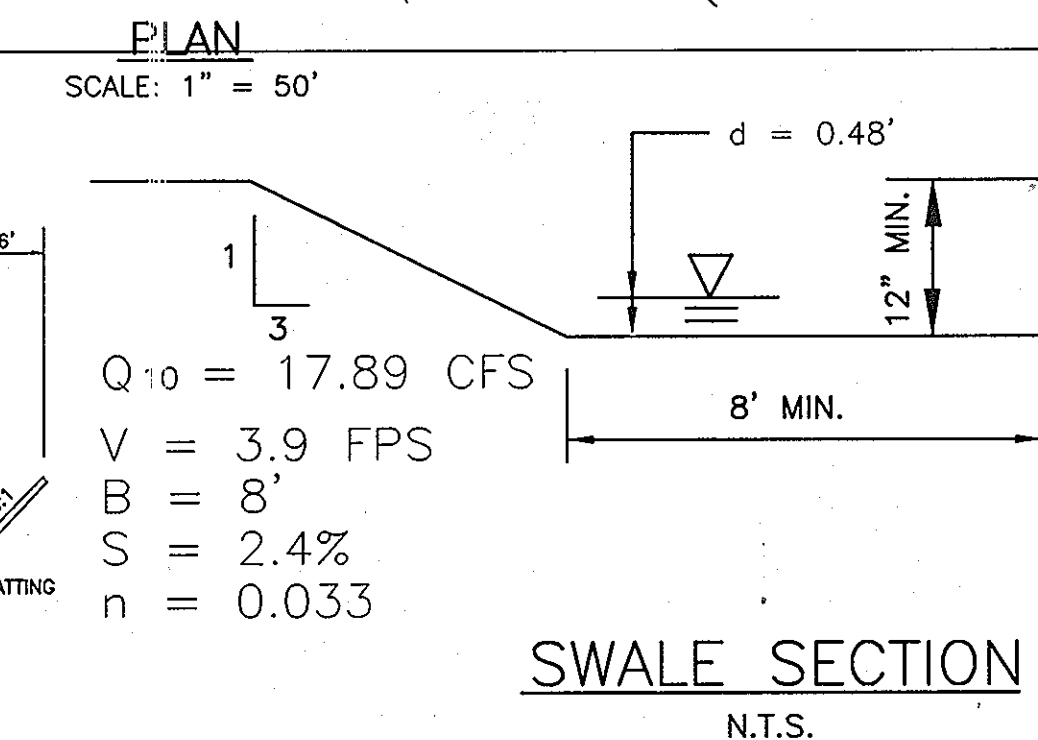
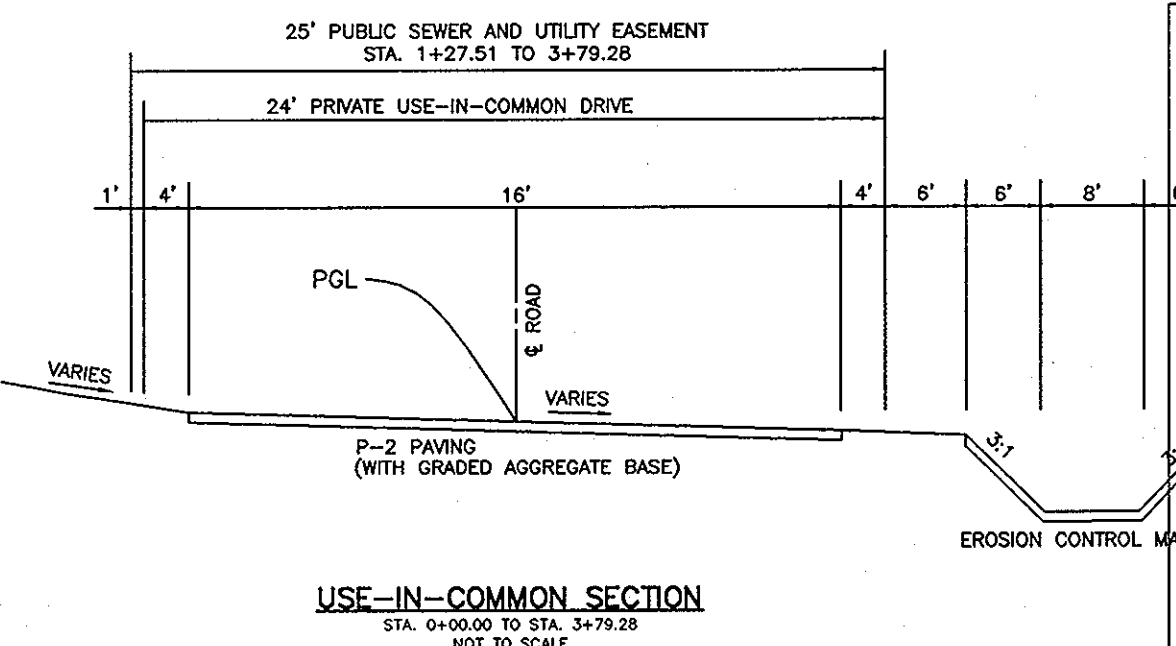
Drainage Area Summary

STUDY POINTS (DRAINAGE AREAS)	EXISTING DISCHARGE (CFS)			DEVELOPED DISCHARGE (CFS)		
	1 YR	10 YR	100 YR	1 YR	10 YR	100 YR
#1	1.3	11.0	22.2	1.3	35.4	56.1
#2	1.3	16.2	34.9	0.7	7.1	14.2
#3	1.0	10.4	22.0	1.0	9.7	20.1

APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Highways
 DATE: 8-10-07

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development
 DATE: 8/14/07

APPROVED: CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 8/14/07



ENGINEER'S CERTIFICATE
 I, WE CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.
 ENGINEER - BRIAN F. CLEARY, P.E. #28559
 DATE: 7/25/2007

DEVELOPER'S CERTIFICATE
 I, WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINS THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 SIGNATURE OF OWNER BURNWOODS, LLC STEVEN BREEDS
 DATE: 7-25-07
 SIGNATURE OF OWNER BURNWOODS, LLC JAMES H. GIBBLETT III
 DATE: 7/25/07

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS
 USDR - NATURAL RESOURCES CONSERVATION SERVICE
 DATE: 8/16/07

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 HOWARD SCD
 DATE: 8/16/07

BENCHMARK ENGINEERING, INC.
 8480 BALTIMORE NATIONAL PIKE SUITE 418
 ELLICOTT CITY, MARYLAND 21043
 PHONE: 410-465-6105 FAX: 410-465-6844
 www.bei-civilengineering.com

OWNER: GHASSANI NESHAWAT
 14445 BURNWOODS ROAD
 GLENWOOD, MD 21738-9530

DEVELOPER: BURNWOODS, L.L.C.
 P.O. BOX 417
 ELLICOTT CITY, MD 21041-0417
 (410) 465-4244

PROJECT: NESHAWAT PROPERTY LOTS 1 TO 5, NON-BUILDABLE PRESERVATION PARCELS A, B, E & F, NON-BUILDABLE BULK PARCEL D AND BUILDABLE PRESERVATION PARCEL C AND

LOCATION: TAX MAP 21
 PARCEL 138 - GRID 5
 4th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TITLE: GRADING, SEDIMENT AND EROSION CONTROL PLAN

DATE: JANUARY, 2007
 JULY, 2007
 PROJECT NO. 1662

Design: BFC Draft: BFC Check: DAM
 SCALE: AS SHOWN DRAWING 3 OF 9

F-07-121

SEDIMENT CONTROL NOTES	
1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (13-1850)	
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, REVISIONS THERETO.	
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RESTORATION, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN A 7 CALENDAR DAYS FOR ALL PERMITTED SEDIMENT CONTROL STRUCTURES, DRAIN, PERMEABLE SLOPES AND ALL SLOPES GREATER THAN 3:1. B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT.	
4. ALL SEDIMENT TRAPS/BASINS SHALL BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.	
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.	
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.	
7. SITE ANALYSIS:	
TOTAL AREA OF SITE (THIS SUBMISSION)	17.07 ACRES
AREA DISTURBED	3.47 ACRES
AREA TO BE ROOFED OR PAVED	0.32 ACRES
AREA TO BE VEGETATIVELY STABILIZED	3.15 ACRES
TOTAL CUT	4519 CY
TOTAL FILL	4231 CY
OFFSITE WASTE/BORROW AREA LOCATION	*
8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY THE SPILL/BORROW AREAS AND NOTIFY THE HOWARD COUNTY DEPARTMENT OF INSPECTION, LICENSES AND PERMITS OF THE SITE AND ITS GRADING PERMIT NUMBER AT THE TIME OF CONSTRUCTION.	
9. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.	
10. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.	
11. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERMITTER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS LITERAL APPROVAL BY THE INSPECTION AGENCY IS OBTAINED.	
12. AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR, AN ADDITIONAL ROW OF "SUPER SILT FENCE IS TO BE PLACED AT THE EASTERN L.O.D.	

PERMANENT SEEDBED PREPARATIONS	
SCHEDULES:	
SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING. IF PREVIOUSLY LOOSENED SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING:	
1. PREFERRED - APPLY 2 TONS PER ACRE DOLOMITE LIMESTONE (92 LBS/1000 SQ FT) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL AT TIME OF SEEDING. APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT).	
2. ACCEPTABLE - APPLY 1 TON PER ACRE DOLOMITE LIMESTONE (92 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.	
SEEDING: FOR THE PERIODS MARCH 1 THROUGH APRIL 30 AND AUGUST 1 THROUGH OCTOBER 31 SEED WITH 60 LBS PER ACRE (14 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (0.5 LBS/1000 SQ FT) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 1 THROUGH FEBRUARY 28, SEED WITH: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS PER ACRE OF KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS PER ACRE.	
MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROOTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER SEEDING USING MULCH ANCHORING TOWEL OR 216 GALLONS PER ACRE (9 GAL/1000 SQ FT) OF EXHAUSTED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT OR HIGHER, USE 348 GALLONS PER ACRE (9 GAL/1000 SQ FT) FOR ANCHORING.	
MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND	

30.0 DUST CONTROL	
Definition:	
Controlling dust blowing and movement on construction sites and roads.	
Purpose:	
To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.	
Conditions Where Practice Applies:	
This practice is applicable to areas subject to dust blowing and movement where on and off-site damage is likely without treatment.	
Temporary Methods:	
1. Mulches - See standards for vegetative stabilization with mulches only. Mulch should be compacted or tamped to prevent blowing.	
2. Vegetative Cover - See standards for temporary vegetative cover.	
3. Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Spading on windward side of site. Chisel-type plows spaced every 12" apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.	
4. Irrigation - This is generally done as an emergency treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.	
5. Barriers - Solid board fences, silt fences, snow fences, burp fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.	
6. Calcium Chloride - Apply at rates that will keep surface moist. May need reapplication.	
Permanent Methods:	
1. Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.	
2. Topsoiling - Covering with less erodible soil materials. See standards for topsoiling.	
3. Stone - Cover surface with crushed stone or coarse gravel.	
References:	
1. Agriculture Handbook 346. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.	
2. Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA-ARS.	

30.0 DUST CONTROL	
DAY 1	OBTAIN GRADING PERMIT.
DAY 2-9	INSTALL STABILIZED CONSTRUCTION ENTRANCE, SUPER SILT FENCES, AND INSTALL PERMANENT SEDIMENT CONTROL DEVICES FOR CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY ONLY.
DAY 10-25	UPON APPROVAL OF HOWARD COUNTY SEDIMENT CONTROL CONSTRUCT THE STORMWATER MANAGEMENT FACILITY AND STABILIZE THE SURROUNDING DISTURBED AREAS.
DAY 26-28	INSTALL SUPER SILT FENCES FOR SEDIMENT CONTROL FOR CONSTRUCTION OF THE SWALE, BURNTWOODS ROAD SHOULD IMPROVEMENTS AND INSTALLATION OF THE SHARED SEPTIC SYSTEM.
DAY 29-40	UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR CONSTRUCT THE SHARED SEPTIC SYSTEM AND SWALE. INSTALL STORM DRAIN TO THE STORMWATER MANAGEMENT FACILITY. DISTURBED AREAS FOR THE INSTALLATION OF THE STORM DRAIN SHALL BE STABILIZED AT THE END OF EACH DAY.
DAY 41-43	UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE REMAINING SEDIMENT CONTROL DEVICES, AND STABILIZED DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDBED NOTES.

APPROVED: DEPARTMENT OF PUBLIC WORKS

With *[Signature]* 8-10-07
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 8/14/07
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

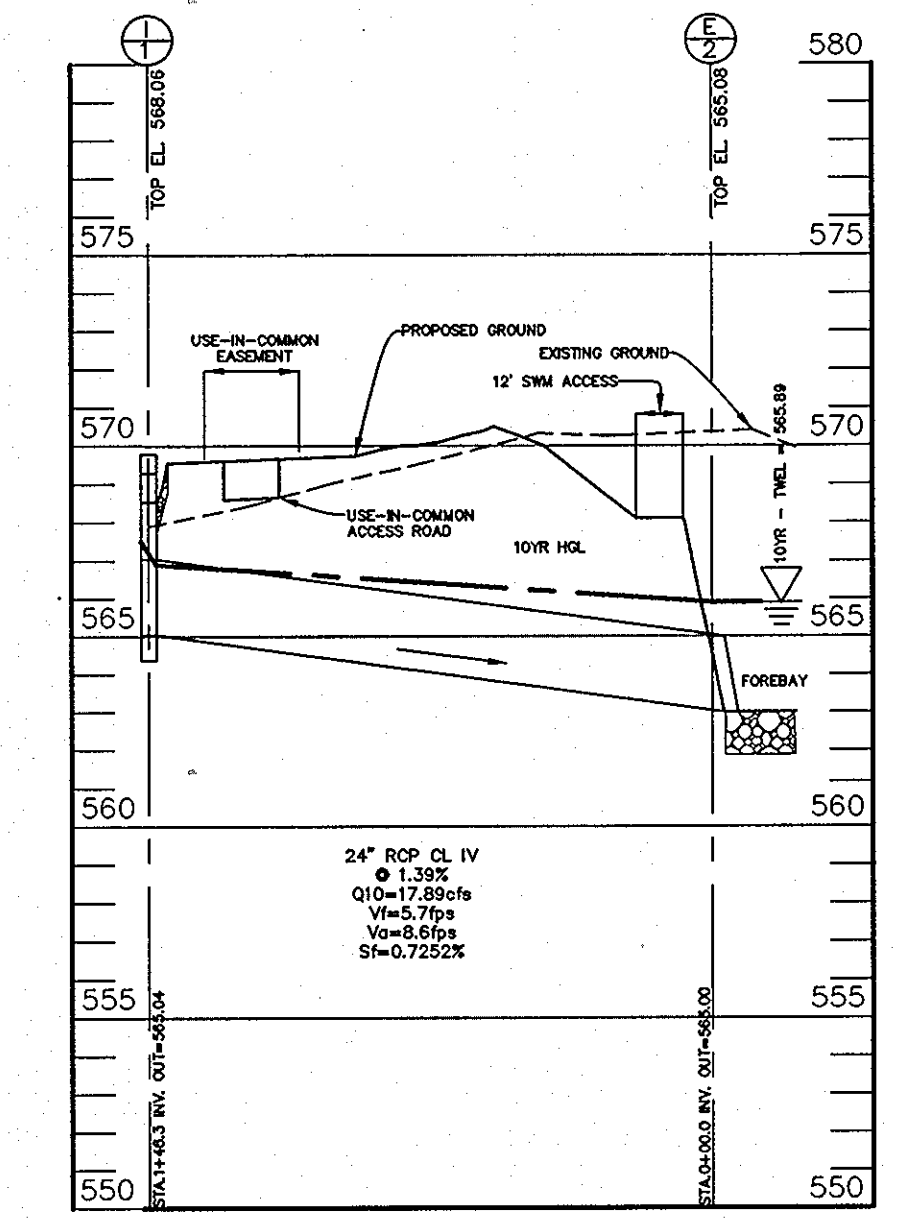
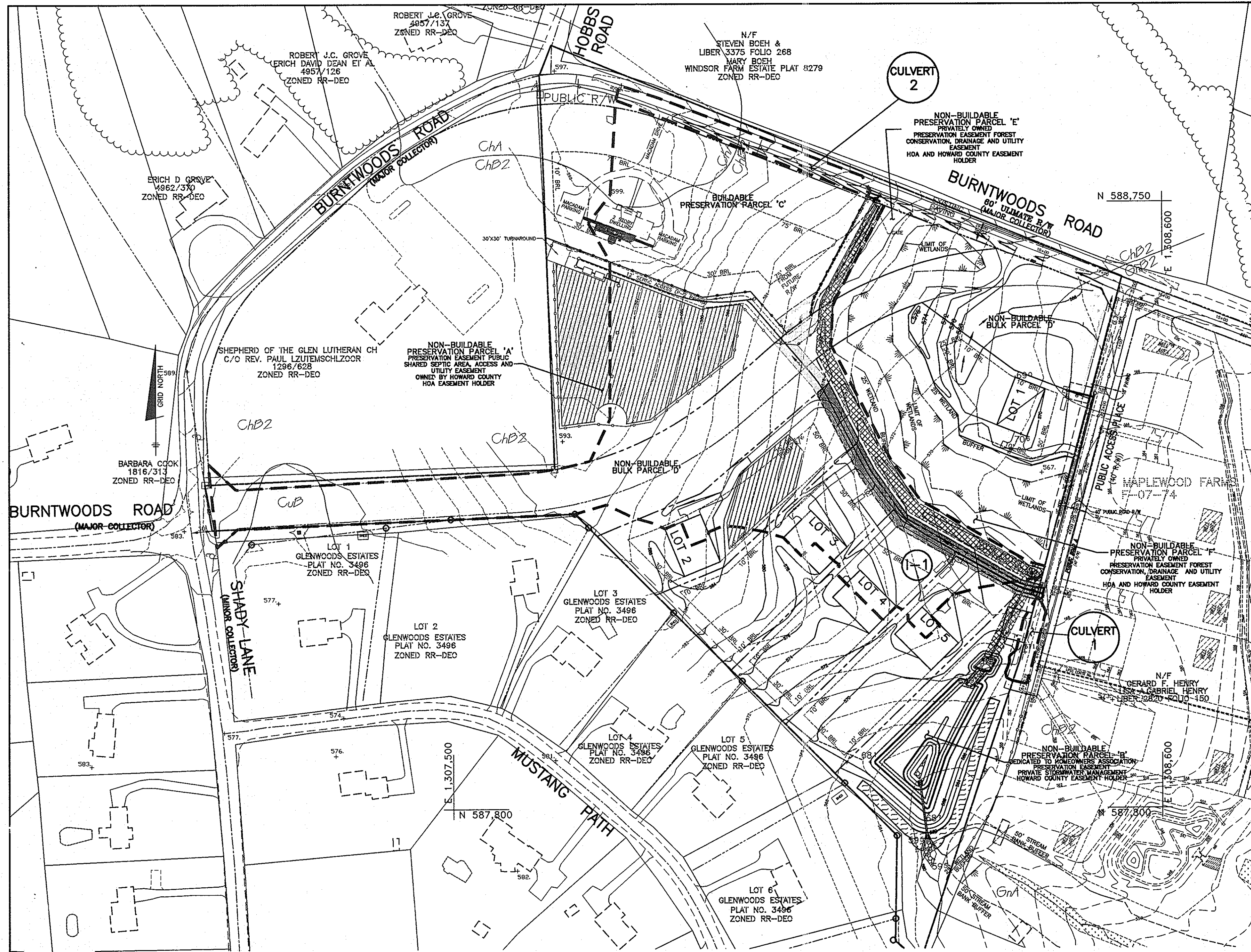
[Signature] 8/14/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

TOPSOIL SPECIFICATIONS	
1. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS in cooperation with Maryland Agricultural Experiment Station.	
2. Soil Specifications - Soil to be used as topsoil must meet the following:	
i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approval of contracting texture subsists and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1-1/2" in diameter.	
ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nutgrass, poison ivy, thistle, or others as specified.	
iii. Where the subsoil is either highly acidic or composed of heavy clay, ground limestone shall be spread at the rate of 4-6 tons/acre (100-600 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over the area and worked into the soil in conjunction with tillage operations as described in the following procedures.	
iv. For sites having disturbed areas under 5 acres:	
1. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.	
v. For sites having disturbed areas over 5 acres:	
1. On soil requiring topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:	
a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.0 or higher.	
b. Organic content or topsoil shall be not less than 1.5 percent by weight.	
c. Topsoil having soluble salt content greater than 500 parts per million shall be used.	
d. No seed or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxicity.	
2. Topsoil specifications or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate authority, may be used in lieu of natural topsoil.	
3. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.	
VI. Topsoil Application	
i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, earth dikes, slope silt fence and sediment traps and basins.	
ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, about 4" - 8" higher in elevation.	
iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 2 inches. Seeding shall be performed in such a manner that seeding or sowing can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from the seeding or sowing operations shall be corrected in order to prevent the formation of depressions or water pockets.	
iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.	
VII. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below.	
i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres the following minimum requirements:	
a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.	
b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.	
c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.	
ii. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.	
References: Guidelines Specifications, Soil Preparation and Sowing, MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.	

SEQUENCE OF CONSTRUCTION	
NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF CONSTRUCTION	
DAY 1	OBTAIN GRADING PERMIT.
DAY 2-9	INSTALL STABILIZED CONSTRUCTION ENTRANCE, SUPER SILT FENCES, AND INSTALL PERMANENT SEDIMENT CONTROL DEVICES FOR CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY ONLY.
DAY 10-25	UPON APPROVAL OF HOWARD COUNTY SEDIMENT CONTROL CONSTRUCT THE STORMWATER MANAGEMENT FACILITY AND STABILIZE THE SURROUNDING DISTURBED AREAS.
DAY 26-28	INSTALL SUPER SILT FENCES FOR SEDIMENT CONTROL FOR CONSTRUCTION OF THE SWALE, BURNTWOODS ROAD SHOULD IMPROVEMENTS AND INSTALLATION OF THE SHARED SEPTIC SYSTEM.
DAY 29-40	UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR CONSTRUCT THE SHARED SEPTIC SYSTEM AND SWALE. INSTALL STORM DRAIN TO THE STORMWATER MANAGEMENT FACILITY. DISTURBED AREAS FOR THE INSTALLATION OF THE STORM DRAIN SHALL BE STABILIZED AT THE END OF EACH DAY.
DAY 41-43	UPON APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE REMAINING SEDIMENT CONTROL DEVICES, AND STABILIZED DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDBED NOTES.

TEMPORARY SEEDBED PREPARATIONS	
APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RESTORED THROUGH A SHORT-TERM SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.	
SEEDING: FOR PERIODS MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 2-1/2 BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 2 LBS PER ACRE OF WEEPING LOVEGRASS (0.7 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.	
MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROOTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOWEL OR 216 GALLONS PER ACRE (9 GAL/1000 SQ FT) OF EXHAUSTED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT OR HIGHER, USE 348 GALLONS PER ACRE (9 GAL/1000 SQ FT) FOR ANCHORING.	
NOTES: EROSION CONTROL MATTING SHALL BE PLACED IN SWALES WHERE DEMED NECESSARY UNTIL VEGETATION IS ESTABLISHED OR SOLID SOIL SHOULD BE USED.	

HILLS-CARNER ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION	
Project Name: <i>[Blank]</i>	Sheet No: <i>[Blank]</i>
Location: <i>[Blank]</i>	Scale: <i>[Blank]</i>
Date: <i>[Blank]</i>	Drawn by: <i>[Blank]</i>
Checked by: <i>[Blank]</i>	Reviewed by: <i>[Blank]</i>
Soil Description: <i>[Blank]</i>	Soil Profile: <i>[Blank]</i>
Soil Type: <i>[Blank]</i>	Soil Depth: <i>[Blank]</i>
Soil Color: <i>[Blank]</i>	Soil Texture: <i>[Blank]</i>
Soil Structure: <i>[Blank]</i>	Soil Consistency: <i>[Blank]</i>
Soil Odor: <i>[Blank]</i>	Soil Temperature: <i>[Blank]</i>
Soil pH: <i>[Blank]</i>	Soil Moisture: <i>[Blank]</i>
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Soil Phosphorus: <i>[Blank]</i>	Soil Potassium: <i>[Blank]</i>
Soil Sulfur: <i>[Blank]</i>	Soil Calcium: <i>[Blank]</i>
Soil Magnesium: <i>[Blank]</i>	Soil Zinc: <i>[Blank]</i>
Soil Copper: <i>[Blank]</i>	Soil Manganese: <i>[Blank]</i>
Soil Iron: <i>[Blank]</i>	Soil Boron: <i>[Blank]</i>
Soil Selenium: <i>[Blank]</i>	Soil Chlorine: <i>[Blank]</i>
Soil Fluorine: <i>[Blank]</i>	Soil Iodine: <i>[Blank]</i>
Soil Bromine: <i>[Blank]</i>	Soil Silver: <i>[Blank]</i>
Soil Gold: <i>[Blank]</i>	Soil Platinum: <i>[Blank]</i>
Soil Mercury: <i>[Blank]</i>	Soil Lead: <i>[Blank]</i>
Soil Cadmium: <i>[Blank]</i>	Soil Chromium: <i>[Blank]</i>
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Soil Antimony: <i>[Blank]</i>	Soil Arsenic: <i>[Blank]</i>
Soil Selenium: <i>[Blank]</i>	Soil Tellurium: <i>[Blank]</i>
Soil Bismuth: <i>[Blank]</i>	Soil Thallium: <i>[Blank]</i>
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Soil Potassium: <i>[Blank]</i>	Soil Sodium: <i>[Blank]</i>
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Soil Strontium: <i>[Blank]</i>	Soil Radium: <i>[Blank]</i>
Soil Potassium: <i>[Blank]</i>	Soil Sodium: <i>[Blank]</i>
Soil Calcium: <i>[Blank]</i>	Soil Magnesium: <i>[Blank]</i>
Soil Iron: <i>[Blank]</i>	Soil Aluminum: <i>[Blank]</i>
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Soil Sulfur: <i>[Blank]</i>	Soil Chlorine: <i>[Blank]</i>
Soil Fluorine: <i>[Blank]</i>	Soil Iodine: <i>[Blank]</i>
Soil Bromine: <i>[Blank]</i>	Soil Silver: <i>[Blank]</i>
Soil Gold: <i>[Blank]</i>	Soil Platinum: <i>[Blank]</i>
Soil Mercury: <i>[Blank]</i>	Soil Lead: <i>[Blank]</i>
Soil Cadmium: <i>[Blank]</i>	Soil Chromium: <i>[Blank]</i>
Soil Nickel: <i>[Blank]</i>	Soil Cobalt: <i>[Blank]</i>
Soil Molybdenum: <i>[Blank]</i>	Soil Vanadium: <i>[Blank]</i>
Soil Antimony: <i>[Blank]</i>	Soil Arsenic: <i>[Blank]</i>
Soil Selenium: <i>[Blank]</i>	Soil Tellurium: <i>[Blank]</i>
Soil Bismuth: <i>[Blank]</i>	Soil Thallium: <i>[Blank]</i>
Soil Lead: <i>[Blank]</i>	Soil Tin: <i>[Blank]</i>
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Soil Bromine: <i>[Blank]</i>	Soil Silver: <i>[Blank]</i>
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Soil Gold: <i>[Blank]</i>	Soil Platinum: <i>[Blank]</i>
Soil Mercury: <i>[Blank]</i> </	



STORM DRAIN PROFILE
I-1 TO E-2
SCALE: VERTICAL 1"=5'
HORIZONTAL 1"=50'

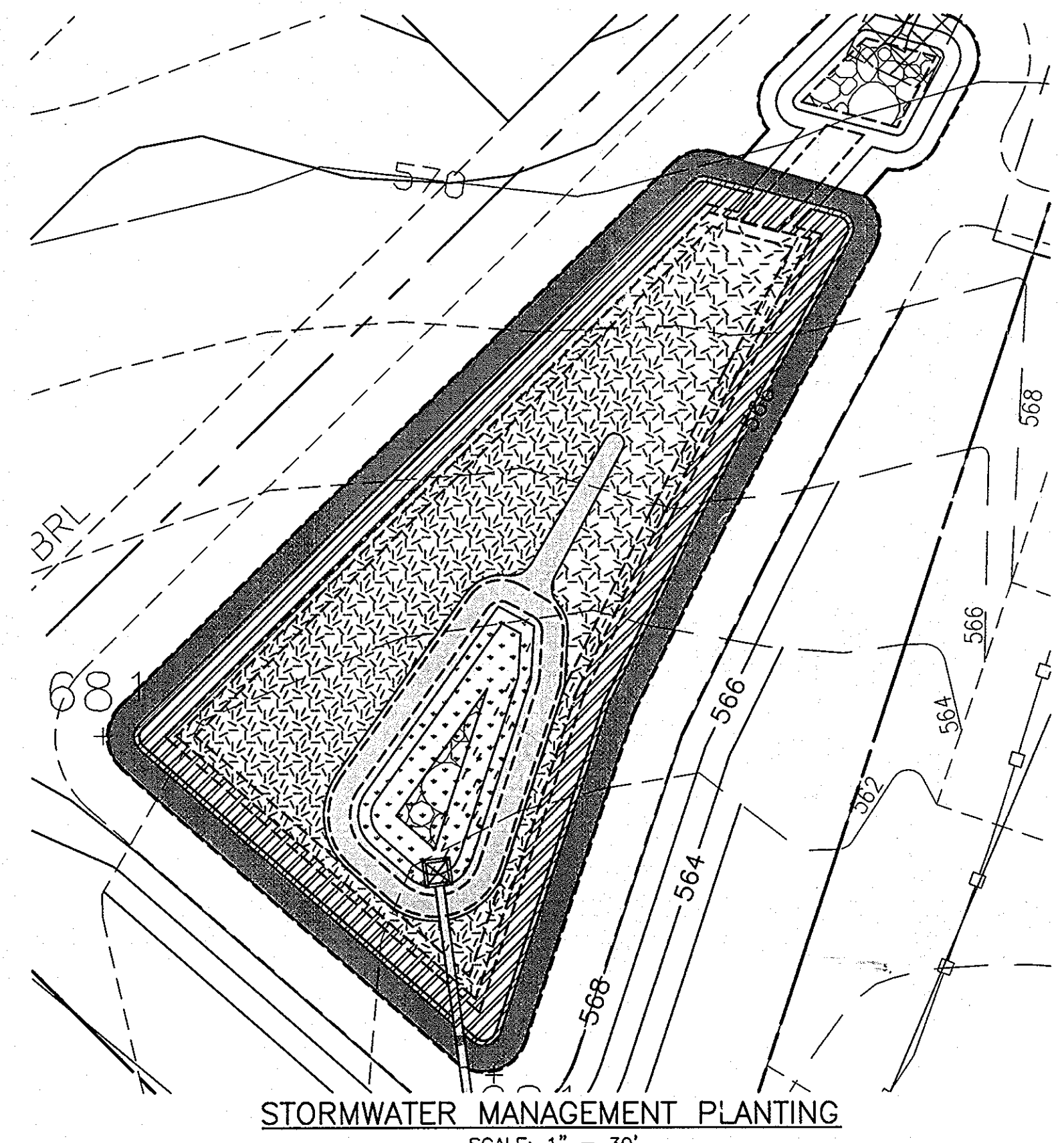
PLANTING SCHEDULE FOR BMP

ZONE	AREA (SF)	ELEVATION RANGE	PLANT MIX
1	1,401	560.00 - 583.00	100% WATER LILLY 50% BROAD WATER WEED
2	1,731	563.00 - 584.00	25% DUCK POTATO 25% ARROW ARUM
3	6,618	564.00 - 565.00	50% CUTGRASS, RICE 50% SWITCHGRASS
4	4,177	565.00 - 565.83	50% LOVEGRASS-MEADOW 25% VIOLETS, COMMON BLUE 25% CONEFLOWER-CUT-LEAF
5	3,560	565.93 - 588.10	75% WITCHGRASS, NEEDLE-LEAF 25% CONEFLOWER, SWEET
6	0 SF	N/A	N/A

NOTES:
1. ALL PLANTINGS TO BE SEED MIX WITH THE ABOVE IDENTIFIED PROPORTIONS SPREAD EVENLY THROUGH THE IDENTIFIED AREAS.
2. PLANTINGS SHALL BE IN ACCORDANCE WITH APPENDIX A OF THE 2000 MARYLAND STORMWATER DESIGN MANUAL VOLUMES 1 & 2.

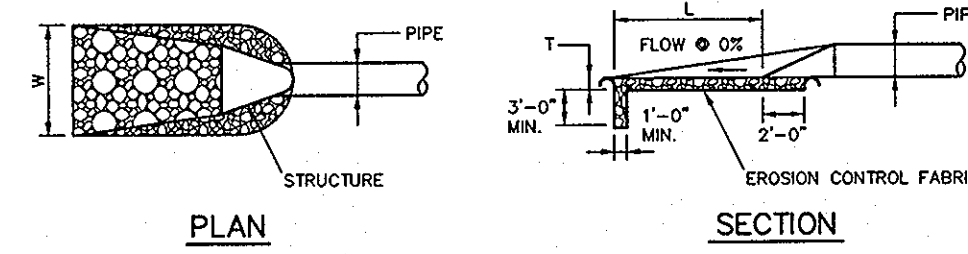
LEGEND

- ZONE 1
- ZONE 2
- ZONE 3
- ZONE 4
- ZONE 5



STORMWATER MANAGEMENT PLANTING
SCALE: 1" = 30'

OUTLET PROTECTION DETAIL
NOT TO SCALE



- CONSTRUCTION SPECIFICATIONS**
- THE SUBGRADE FOR THE FILTER, RIP-RAP, OR GABION SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
 - THE ROCK OR GRAVEL SHALL CONFORM TO THE SPECIFIED GRADING LIMITS WHEN INSTALLED RESPECTIVELY IN THE RIP-RAP OR FILTER.
 - GEOTEXTILE CLASS C28 OR BETTER SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE PREPARED BY PLACING ANOTHER PIECE OF GEOTEXTILE FABRIC OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE FABRIC. ALL OVERLAPS WHETHER FOR REPAIRS OR FOR JOINING TWO PIECES OF GEOTEXTILE FABRIC SHALL BE A MINIMUM OF ONE FOOT.
 - STONE FOR THE RIP-RAP OR GABION OUTLETS MAY BE PLACED BY EQUIPMENT. THEY SHALL BE CONSTRUCTED TO THE FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. THE STONE FOR THE RIP-RAP OR GABION OUTLETS SHALL BE DELIVERED AND PLACED IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. RIP-RAP SHALL BE PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE FABRIC. HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE PERMANENT WORKS.
 - THE STONE SHALL BE PLACED SO THAT IT BLENDS IN WITH THE EXISTING GROUND. IF THE STONE IS PLACED TOO HIGH THEN THE FLOW WILL BE FORCED OUT OF THE CHANNEL AND SCOUR ADJACENT TO THE STONE WILL OCCUR.

PIPE SCHEDULE

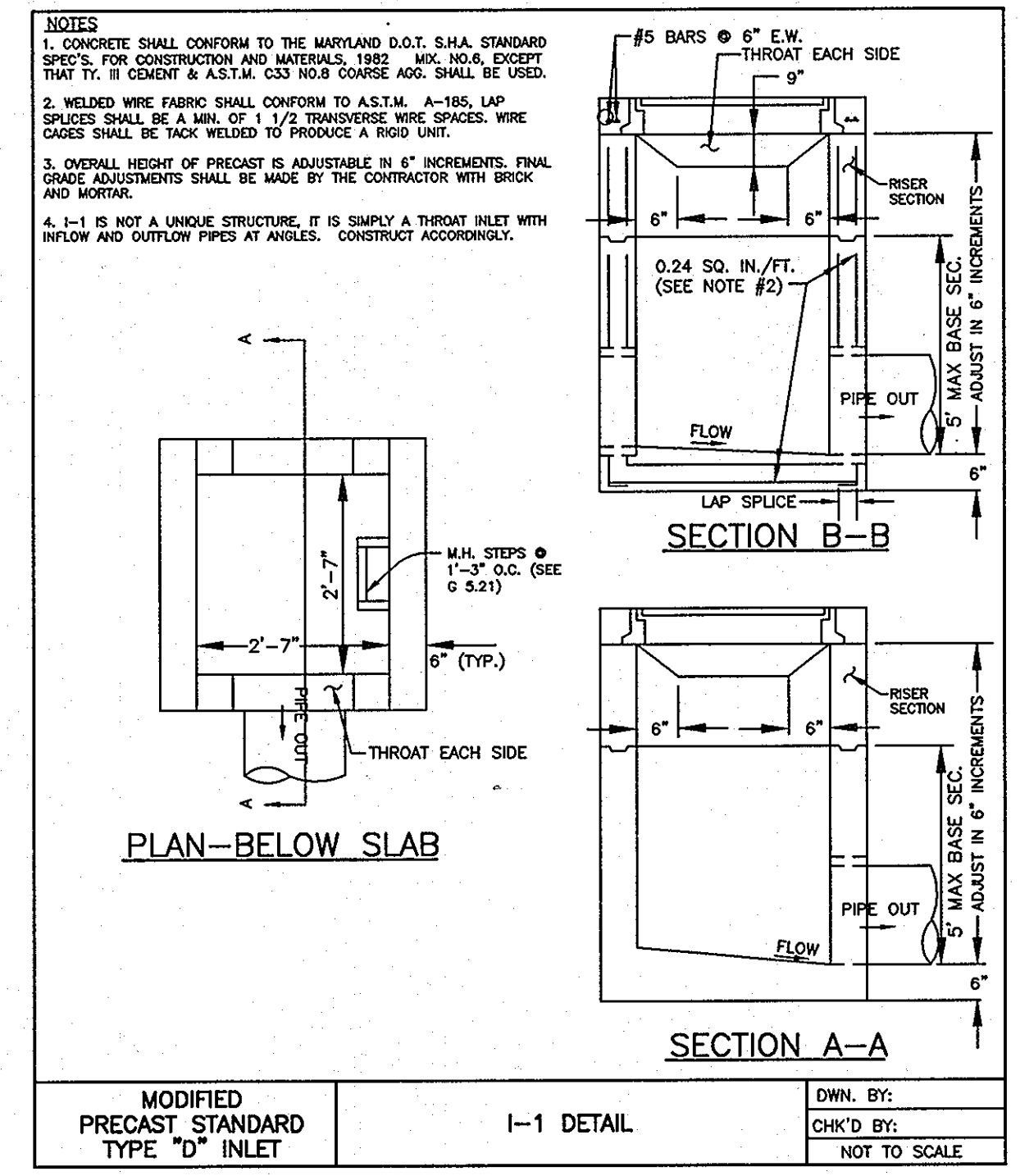
TYPE & CLASS	SIZE	LENGTH
RCP	24"	147'
CMP	15"	49'
ASTM C-361	27"	84'

RCP = REINFORCED CONCRETE PIPE
CMP = CORUGATED METAL PIPE

STRUCTURE SCHEDULE

STORM INLETS						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	HO. CO. STD.
I-1	TYPE "D"	N 588,167.44, E 1,308,397.53	-	565.04	568.30	SD-4.11 W/ 9" OPENING/4-SIDES
END SECTIONS						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	HO. CO. STD.
E-1	CONCRETE END SECTION	N 587,755.68, E 1,308,234.74	-	559.50	-	SD - 5.51
E-2	CONCRETE END SECTION	N 588,036.08, E 1,308,333.16	-	563.00	-	SD - 5.51
STRUCTURES						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	HO. CO. STD.
S-1	CONTROL STRUCTURE	N 587,839.08, E 1,308,223.74	560.00	560.00	566.95	SEE SHEET 7 OF 9

- STRUCTURE ELEVATION AND LOCATION FOR CURB INLETS IS AT THE TOP OF CURB AT MIDPOINT OF THE INLET AT THE FACE.
- STRUCTURE ELEVATION AND LOCATION FOR TYPE "D" AND "W" INLETS IS AT THE TOP OF SLAB/GRADE AT CENTER OF THE INLET.
- ALL STORM DRAINS SHALL BE REINFORCED CONCRETE PIPE (CLASS IV) UNLESS OTHERWISE NOTED.
- STRUCTURE ELEVATION AND LOCATION FOR END SECTION IS AT THE INVERT WHERE PIPE JOINS END SECTION



MODIFIED PRECAST STANDARD TYPE "D" INLET
I-1 DETAIL
DWN. BY: NOT TO SCALE
CHK'D BY:

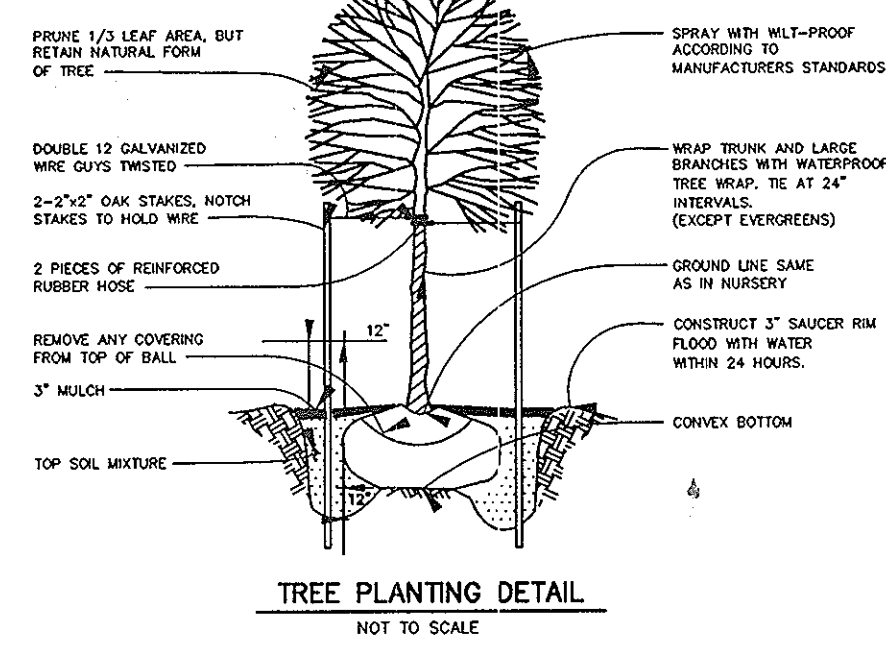
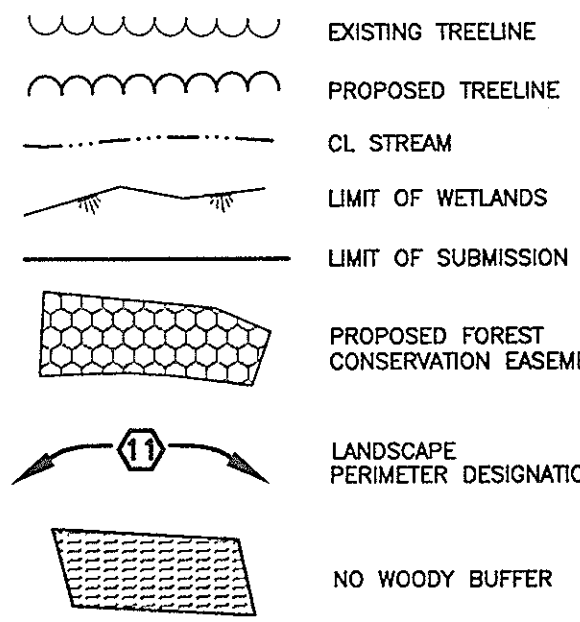
1	7-2-2010	REVISION SEWER MAIN LOCATION	REVISION
BENCHMARK ENGINEERING, INC.			
ENGINEERS • LAND SURVEYORS • PLANNERS			
8480 BALTIMORE NATIONAL PIKE • SUITE 418 ELLCOTT CITY, MARYLAND 21043 PHONE: 410-465-6105 FAX: 410-465-6644 www.bel-civilengineering.com			
OWNER:		PROJECT: NESHAWAT PROPERTY	
GHASSANI NESHAWAT 14445 BURNTWOODS ROAD GLENWOOD, MD 21738-9530		LOTS 1 TO 5, NON-BUILDABLE PRESERVATION PARCELS A, B, E & F, NON-BUILDABLE BULK PARCEL D AND BUILDABLE PRESERVATION PARCEL C	
DEVELOPER:		LOCATION:	
BURNTWOODS, L.L.C. P.O. BOX 417 ELLCOTT CITY, MD 21041-0417 (410) 465-4244		TAX MAP 21 PARCEL 138 - GRID 5 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND	
TITLE:		TITLE:	
STORM DRAIN DRAINAGE AREA MAP, PROFILES AND DETAILS		DATE: JANUARY, 2007 PROJECT NO. 1662	
DATE: JULY, 2007		DRAWING 5 OF 9	
SCALE: AS SHOWN		DESIGN: BFC DRAFT: BFC CHECK: DAM	

APPROVED: DEPARTMENT OF PUBLIC WORKS
Walter F. Mahaffey 8-10-07
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Linda Hanna 5/14/09
CHIEF, DIVISION OF LAND DEVELOPMENT

Chris DeWitt 8/14/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION

LEGEND



SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJ. TO PERIMETER PROP. (1)	ADJ. TO R/W (2)	ADJ. TO PERIMETER PROP. (3)	ADJ. TO PERIMETER PROP. (4)	ADJ. TO PERIMETER PROP. (5)	ADJ. TO PERIMETER PROP. (6)
LANDSCAPE TYPE	A	B	A	A	A	A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	449'	171'	476'	438'	877'	599'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED	449'	171'	476'	438'	877'	599'
SHADE TREES	8	4	8	8	12	10
EVERGREEN TREES	-	5	-	-	-	-
OTHER TREES (2:1 SUBSTITUTE)	-	-	-	-	-	-
SHRUBS	-	-	-	-	-	-

LANDSCAPE PLANTING LIST

SYMBOL	QUANTITY	NAME	REMARKS	DESCRIPTION
☉	29	QUERCUS RUBRA (Red Oak)	2-1/2" - 3" cal.	SHADE TREES ALONG PERIMETER TO BE PROVIDED BY THE DEVELOPER
☀	5	PINUS STROBUS (Coastal White Pine)	6' - 8' ht.	EVERGREEN TREES ALONG PERIMETER AND SWM FACILITIES TO BE PROVIDED BY THE DEVELOPER
☀	21	TILIA CORDATA (Greenspire Littleleaf Linden)	2-1/2" - 3" cal.	SHADE TREES ALONG SWM FACILITIES TO BE PROVIDED BY THE DEVELOPER

SCHEDULE B SWM PERIMETER LANDSCAPING

LINEAR FEET OF PERIMETER	SWMF 1
820'	820'
LINEAR FEET OF EXISTING WOODS LINE	820'
LINEAR FEET OF REQUIRED PLANTING	820'
BUFFER TYPE	"B"
CREDIT FOR EXISTING VEGETATION (NO, YES AND %)	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES AND %)	NO
NUMBER OF TREES REQUIRED	
SHADE TREES	17
EVERGREEN TREES	21
NUMBER OF TREES PROVIDED	
SHADE TREES	17
EVERGREEN TREES	21

SWM LANDSCAPE PLANTING LIST

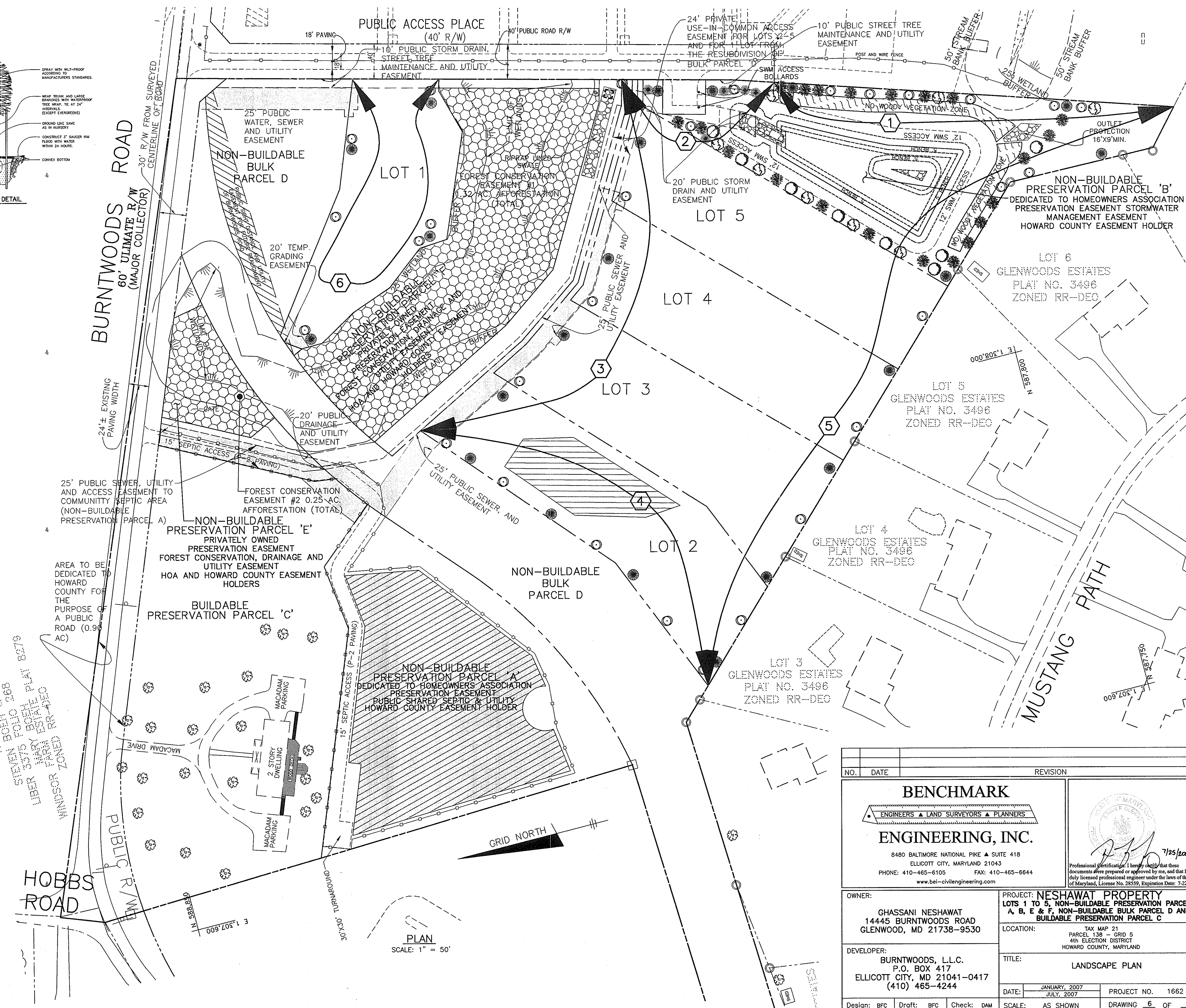
SYMBOL	QUANTITY	NAME	REMARKS
☀	8	ACER SACCHARUM SUGAR MAPLE	2 1/2"-3" MIN. CAL. B & B FULL HEAD
☀	9	ACER RUBRUM "OCTOBER GLORY" (October Glory Red Maple)	2 1/2" MIN. CAL. B&B FULL HEAD
☀	21	PINES STROBUS EASTERN WHITE PINE	6'-8' HT

- PLANTING NOTES:**
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
 - TREES MUST BE PLANTED A MINIMUM OF 4 FEET FROM THE EDGE OF PAVING, 10' FROM A DRIVEWAY AND MUST BE A MINIMUM OF 5 FEET FROM ANY STORM DRAIN.
 - ALL PLANTINGS ARE THE RESPONSIBILITY OF THE DEVELOPER.
 - PERIMETER AND STORM WATER MANAGEMENT LANDSCAPING SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR 67 SHADE TREES AND 26 EVERGREENS SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT FOR THIS PROJECT IN THE AMOUNT OF \$24,000.00.
 - PUBLIC ACCESS PLACE STREET TREE PLANTINGS WILL BE PROVIDED UNDER F-07-74/HENRY MAPLEWOOD FARMS.

DEVELOPER'S/BUILDER'S CERTIFICATE

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

SIGNATURE OF OWNER BURNWOODS, LLC STEVEN R. BREEDEN *7-25-07* DATE
 SIGNATURE OF OWNER BURNWOODS, LLC JAMES R. WISLEY II *7/25/07* DATE
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION *8/14/07* DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT *8/14/07* DATE
 DIRECTOR _____ DATE



NO.	DATE	REVISION

BENCHMARK ENGINEERING, INC.

ENGINEERS • LAND SURVEYORS • PLANNERS

8480 BALTIMORE NATIONAL PIKE • SUITE 418
ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644
www.bei--civilengineering.com

Professional Identification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 28559, Expiration Date: 7-22-2009.

OWNER: GHASSANI NESHAWAT
14445 BURNWOODS ROAD
GLENWOOD, MD 21738-9530

DEVELOPER: BURNWOODS, L.L.C.
P.O. BOX 417
ELLICOTT CITY, MD 21041-0417
(410) 465-4244

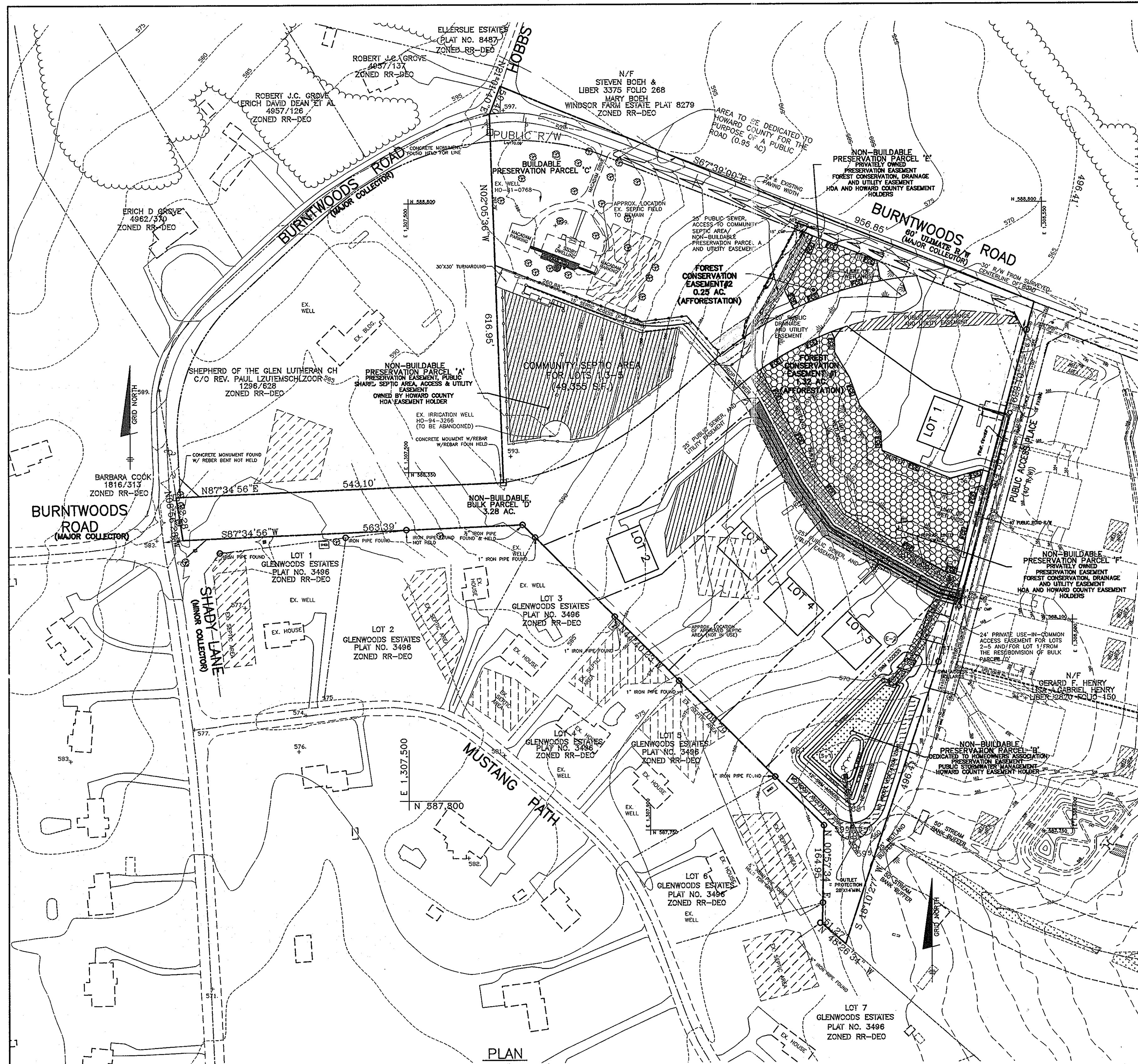
PROJECT: NESHAWAT PROPERTY LOTS 1 TO 5, NON-BUILDABLE PRESERVATION PARCELS A, B, E & F, NON-BUILDABLE BULK PARCEL D AND BUILDABLE PRESERVATION PARCEL C

LOCATION: TAX MAP 21
PARCEL 138 - GRID 5
4th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE: LANDSCAPE PLAN

DATE: JANUARY, 2007 PROJECT NO. 1662
JULY, 2007

Design: BFC Draft: BFC Check: DAM SCALE: AS SHOWN DRAWING 6 OF 9



FOREST CONSERVATION WORKSHEET
NESHAWAT PROPERTY
5-Aug-02

NET TRACT AREA:

A. Total tract area	17.07
B. Land dedication acres (parks, county facility, etc.)	0.00
C. Land dedication for roads or utilities (not being constructed by this plan)	3.28
D. Area to remain in commercial agricultural production/use	0.00
E. Other deductions (specify)	0.00
F. Net Tract Area	13.79

LAND USE CATEGORY: (from Trees Technical Manual)
Input the number "1" under the appropriate land use, limit to only one entry.

ARA	MDR	IDA	HDR	MPD	CIA
0	1	0	0	0	0

G. Afforestation Threshold ... 20% x F = 2.76
H. Conservation Threshold ... 25% x F = 3.45

EXISTING FOREST COVER:

I. Existing forest cover	0.00
J. Area of forest above afforestation threshold	0.00
K. Area of forest above conservation threshold	0.00

BREAK EVEN POINT:

L. Forest retention above threshold with no mitigation	0.00
M. Clearing permitted without mitigation	0.00

PROPOSED FOREST CLEARING:

N. Total area of forest to be cleared	0.00
O. Total area of forest to be retained	0.00

PLANTING REQUIREMENTS:

P. Reforestation for clearing above conservation threshold	0.00
Q. Reforestation for clearing below conservation threshold	0.00
R. Credit for retention above conservation threshold	0.00
S. Total reforestation required	0.00
T. Total afforestation required	2.76
U. Credit for landscaping (may not exceed 20% of 'S')	0.00
V. Total reforestation and afforestation required	2.76

* THE DEDUCTION OF 3.28 ACRES OF ROW ARE FOR THE FUTURE REALIGNMENT OF BURNWOODS ROAD (NON-BUILDABLE BULK PARCEL D) HAS BEEN APPROVED UNDER WP-07-106 (SEE FCP NOTE #8).

LEGEND

SOILS CLASSIFICATION	AbC1	PUBLIC SEWER, WATER AND UTILITY EASEMENT
SOILS DELINEATION	---	RIP-RAP
EXISTING CONTOURS	---	EROSION CONTROL MATTING
PROPOSED CONTOURS	---	USE-IN-COMMON EASEMENT (LOTS 2-5)
LIMIT OF WETLANDS	---	SIGHT DISTANCE EASEMENT
EXISTING WOODS LINE	---	LIMIT OF DISTURBANCE
EXISTING STRUCTURE	---	STABILIZED CONSTRUCTION ENTRANCE
PROPOSED STRUCTURE	---	SUPER SILT FENCE
FOREST CONSERVATION EASEMENT	---	INLET PROTECTION
EROSION CONTROL MATTING	---	FOREST CONSERVATION SIGNAGE

Forest Conservation Area
AFFORESTATION PROJECT
Trees for Your Future

- PLANTING/SOIL SPECIFICATIONS
- PLANTING OF NURSERY STOCK SHALL TAKE PLACE BETWEEN MARCH 15TH AND APRIL 30TH. CONTAINER STOCK MAY BE PLANTED BETWEEN SEPTEMBER AND OCTOBER.
 - A THREE (3) INCH LAYER OF TOPSOIL SHALL BE SPREAD OVER ALL AFFORESTATION AREAS IMPACTED BY GRADING TO ASSURE ADEQUATE PLANTING AREA. TOPSOIL AREAS SHALL BE SEEDED AND STABILIZED AS PER GENERAL CONSTRUCTION PLAN FOR PROJECT. PLANTING AREAS NOT IMPACTED BY GRADING SHALL HAVE NO GRADING, TOPSOIL, MULCH, OR WEEDS.
 - ALL NURSERY STOCK SHALL HAVE THEIR ROOT SYSTEMS DIPPED INTO AN ANTI-DESICCANT SOLUTION TO PREVENT DROUGHT FROM THE TOP OF ROOT MASS 24 HOURS WITH TOP OF EXISTING GRADE. MULCH IN THE PLANTING PITS SHALL CONSIST OF 3 PARTS EXISTING SOIL TO 1 PART MULCH.
 - PLANTING SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
 - PLANTING SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
 - A TWO (2) INCH LAYER OF HARDWOOD MULCH SHALL BE PLACED OVER THE ROOT AREA OF ALL PLANTS.
 - PLANT MATERIAL SHALL BE TRANSPORTED TO THE SITE IN A TARPED OR COVERED TRUCK. PLANTS SHALL BE KEPT MOIST PRIOR TO PLANTING.
 - ALL NON-ORGANIC DEBRIS ASSOCIATED WITH THE PLANTING OPERATION SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.

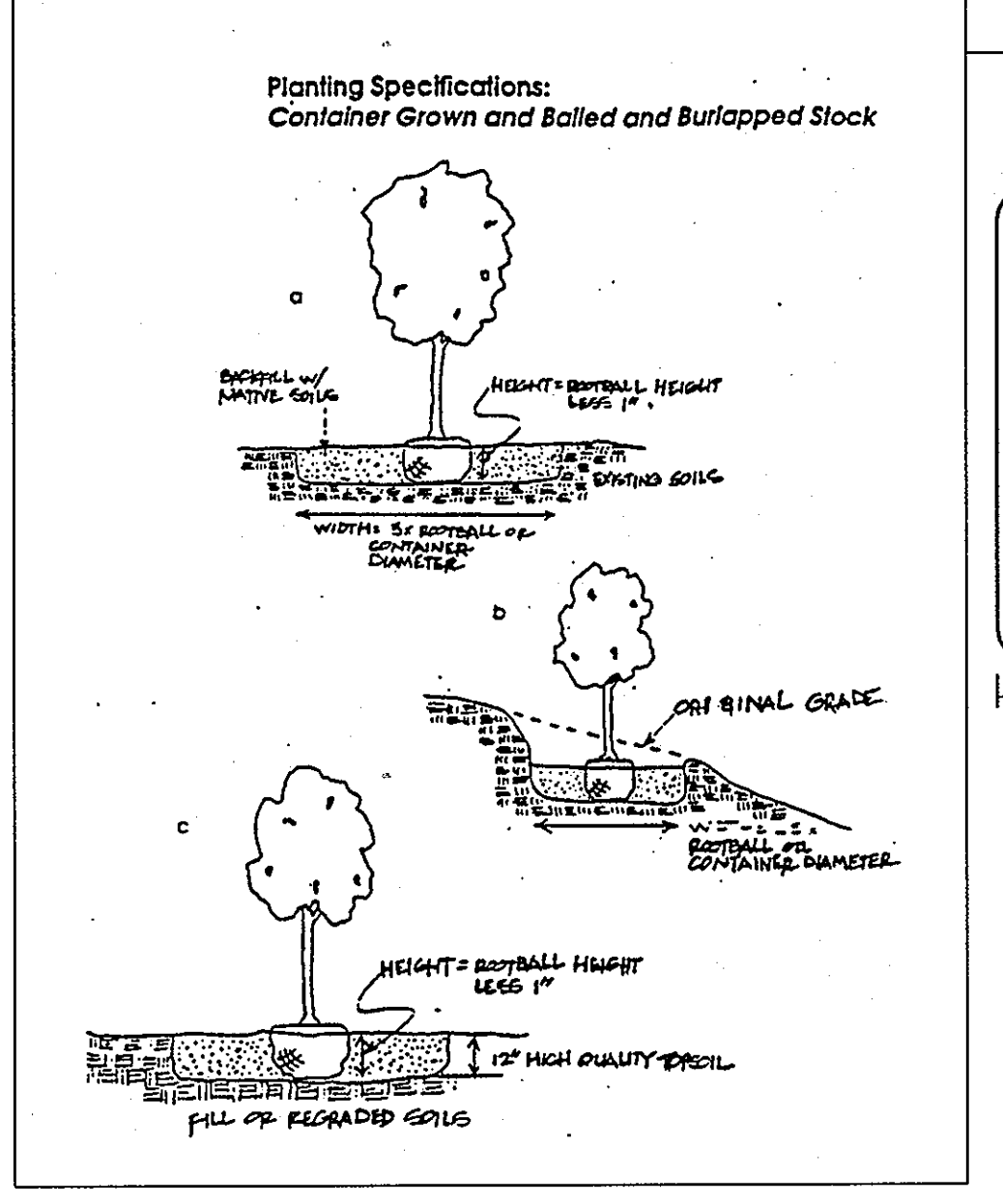
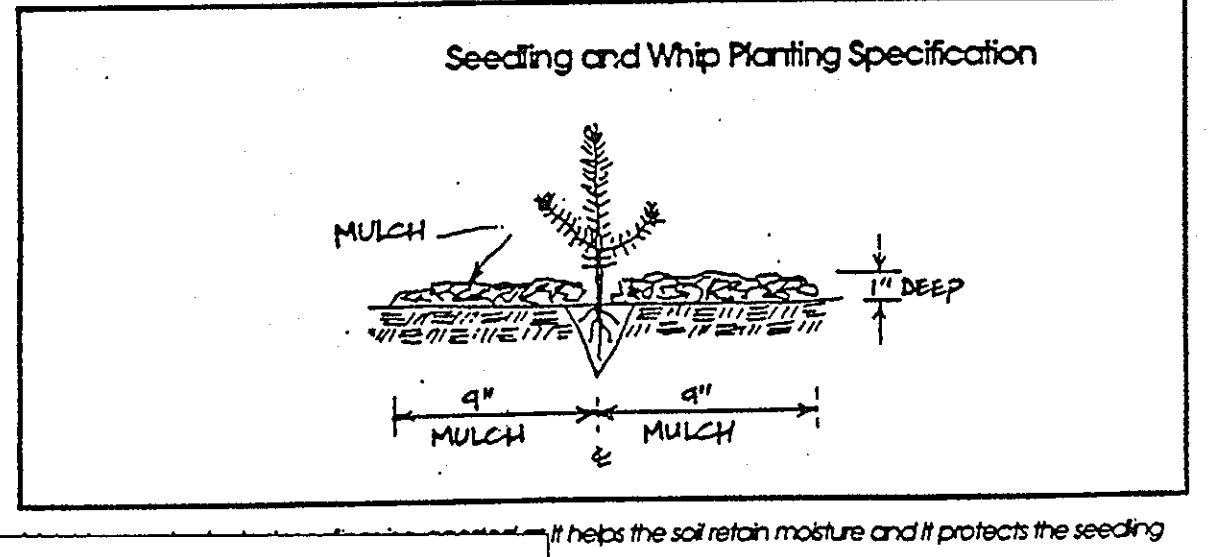
- SEQUENCE OF CONSTRUCTION
- PLANTS SHALL BE INSTALLED AS PER PLANT SCHEDULE AND PLANTING/SOIL SPECIFICATIONS FOR THE PROJECT.
 - UPON COMPLETION OF THE PLANTING, SIGNAGE SHALL BE INSTALLED AS PER THE FOREST RETENTION AREA PROTECTION SCHEDULE SHOWN ON THE FOREST CONSERVATION EASEMENT PLAN.
 - PLANTINGS SHALL BE MAINTAINED AND GUARANTEED IN ACCORDANCE WITH THE MAINTENANCE AND GUARANTEE REQUIREMENTS FOR PROJECT.

- MAINTENANCE OF PLANTINGS
- MAINTENANCE OF ALL PLANTINGS SHALL LAST FOR A PERIOD OF 24 MONTHS.
 - ALL PLANT MATERIAL SHALL BE WATERED THREE (3) TIMES DURING THE 1ST GROWING SEASON. WATERING MAY BE MORE OR LESS FREQUENT DEPENDING ON WEATHER CONDITIONS. DURING SECOND GROWING SEASON, A MORE FREQUENT WATERING SCHEDULE WILL BE REQUIRED.
 - INVASIVE EXOTIC AND WOODS WEEDS WILL BE REMOVED FROM REFORESTATION AREAS. OLD FIELD OCCASIONAL SPECIES WILL BE RETAINED.
 - PLANTS WILL BE EXAMINED A MINIMUM OF TWO TIMES DURING THE GROWING SEASON FOR STRESSORS, PLANT PESTS AND DISEASES. SERIOUS PROBLEMS WILL BE TREATED WITH THE ASSISTANCE OF A FOREST MANAGEMENT SPECIALIST.
 - DEAD BRANCHES WILL BE PRUNED FROM PLANTINGS.

- GUARANTEE REQUIREMENTS
- AFTER ONE GROWING SEASON, PLANT MATERIAL SHALL BE MAINTAINED AT 90% SURVIVAL THRESHOLD. FOR SURVIVAL RATE OF PLANTINGS BELOW 90% SURVIVAL THRESHOLD AT THE END OF THE 24 MONTH MAINTENANCE PERIOD, ALL PLANT MATERIAL BELOW THE 70% THRESHOLD WILL BE REPLACED AT THE BEGINNING OF THE NEXT GROWING SEASON.
 - THE CONTRACTOR WILL NOT BE LIABLE FOR PLANT LOSS DUE TO THEFT OR VANDALISM.

- SURETY FOR REFORESTATION
- THE DEVELOPER SHALL POST A SURETY (BOND, LETTER OF CREDIT) TO ENSURE THAT REFORESTATION PLANTING AND MAINTENANCE REQUIREMENTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WILL BE RESTRICTED TO THE DISTURBANCE AND USE OF THESE AREAS.

- FCP NOTES:
- ANY FOREST CONSERVATION EASEMENT (FCE) AREA SHOWN HEREON IS SUBJECT TO PROTECTIVE COVENANTS WHICH MAY BE FOUND IN THE LAND RECORDS OF HOWARD COUNTY WHICH RESTRICT THE DISTURBANCE AND USE OF THESE AREAS.
 - THE FOREST CONSERVATION EASEMENTS HAVE BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1202 OF THE HOWARD COUNTY CODE. FOREST CONSERVATION ACT, NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENTS. FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
 - LIMITS OF DISTURBANCE SHALL BE RESTRICTED TO AREAS OUTSIDE THE LIMIT OF TEMPORARY FENCING OR THE FCE BOUNDARY, WHICHEVER IS GREATER.
 - THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENT, EXCEPT AS PERMITTED BY HOWARD COUNTY BY.
 - NO STOCKPILES, PARKING AREAS, EQUIPMENT CLEANING AREAS, ETC. SHALL OCCUR WITHIN AREAS DESIGNATED AS FOREST CONSERVATION EASEMENTS.
 - TEMPORARY FENCING SHALL BE USED TO PROTECT FOREST RESOURCES DURING CONSTRUCTION. THE FENCING SHALL BE PLACED ALONG ALL FCE BOUNDARIES WHICH OCCUR WITHIN 15 FEET OF THE PROPOSED LIMITS OF DISTURBANCE.
 - PERMANENT SIGNAGE SHALL BE PLACED 50-100' APART ALONG THE BOUNDARIES OF ALL AREAS INCLUDED IN FOREST CONSERVATION EASEMENTS.
 - THE FOREST CONSERVATION REQUIREMENTS FOR BULK PARCEL 'D' HAVE NOT BEEN INCLUDED IN THIS PLAN. A WAIVER PETITION (WP-07-106) TO SECTION 16.1202 HAS BEEN SUBMITTED TO DEFER THE FOREST CONSERVATION OBLIGATION OR NON-BUILDABLE PARCEL 'D' (3.28 AC.) UNTIL PARCEL D IS RESUBDIVIDED.
 - FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1202 OF THE FOREST CONSERVATION ACT OF 2006 SHALL BE FULFILLED BY THE DEVELOPER. THE SURETY FOR 1.57 ACRES OF AFFORESTATION (\$8,336.40 x \$5,200) IN THE AMOUNT OF \$43,952.80 (SHALL BE POSTED WITH THE DEVELOPER'S AGREEMENT UNDER THIS FINAL PLAN, F-07-121) THE AREA OF THE FUTURE ROW OF BURNWOODS ROAD (NON-BUILDABLE BULK PARCEL D) OF 3.28 ACRES HAS BEEN DEDUCTED FROM FCA OBLIGATIONS IN ACCORDANCE WITH THE DECISION OF WP-07-106. FOREST CONSERVATION OBLIGATIONS ON THIS AREA WILL BE FULFILLED AT THE TIME OF ANY FUTURE SUBDIVISION OF NON-BUILDABLE BULK PARCEL D.



Forest Conservation Easement
Unauthorized disturbance of vegetation is prohibited. Violators are subject to fines as imposed by the Howard County Forest Conservation Act of 1992.
Trees for Your Future

- FOREST CONSERVATION EASEMENT BEARING AND DISTANCE DESCRIPTIONS ARE PROVIDED ON THE FINAL PLAN.
- PLANTING NOTES:
Planting density based on 700 planting units per acre. 2" caliper trees = 7 planting units, 1" caliper trees = 3.5 planting units, whips with shelter = 2 planting units.
- ** - These species should not be planted within the wetland limits.
- 1" caliper trees should be staggered along the outer perimeter of the planting area to serve as demarcation of the boundary. The trees should be no closer than 15 foot spacing.
- Planting shall be made in a curvilinear fashion along contour. The planting should avoid a grid appearance but should be spaced to facilitate maintenance.
- Multiflora rose/heavy brush removal/control may be required prior to installation of planting.
- All whips are required to be installed with tree shelters per Howard County FCA requirements.

MULTIFLORA ROSE CONTROL NOTE
MULTIFLORA ROSE IS PREVALENT IN CERTAIN AREAS TO BE PLANTED. PRIOR TO PLANTING ALL MULTIFLORA ROSE SHOULD BE REMOVED. REMOVAL OF THE ROSE MAY BE PERFORMED WITH MOWING AND HERBICIDE TREATMENTS. PHYSICAL REMOVAL OF ALL TOP GROWTH FOLLOWED BY A PERIODIC HERBICIDE TREATMENT OF STUMP SPROUTS IS RECOMMENDED. NATIVE TREE AND SHRUB SPECIES OCCURRING WITHIN THE ROSE THICKETS SHOULD BE RETAINED WHERE POSSIBLE. HERBICIDE TREATMENTS SHALL OCCUR ON 2 MONTH INTERVALS DURING THE FIRST GROWING SEASON AND ONCE EACH IN THE SPRING AND FALL FOR SUBSEQUENT YEARS. HERBICIDE USED SHALL BE MADE SPECIFICALLY TO ADDRESS WOODY PLANT MATERIAL AND SHALL BE APPLIED AS PER MANUFACTURER'S SPECIFICATIONS. CARE SHOULD BE TAKEN NOT TO SPRAY PLANTED TREES OR NATURALLY OCCURRING NATIVE TREE/SHRUB SEEDLINGS. IT IS RECOMMENDED THAT INITIATION OF ROSE REMOVAL BEGIN AT LEAST SIX MONTHS PRIOR TO PLANTING.

APPROVED: DEPARTMENT OF PUBLIC WORKS
With a check
CHIEF, BUREAU OF HIGHWAYS
8-10-07
DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DIVISION OF LAND DEVELOPMENT
8/14/07
DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION
8/14/07
DATE

SITE DATA

GROSS AREA:	17.07
AREA DEDICATED TO R/W	3.28
AGRICULTURAL PRODUCTION AREA	0.00
NET TRACT AREA	13.79
EXISTING FOREST (EXCLUDING PARCEL B)	0.00
AFFORESTATION THRESHOLD	2.76
CONSERVATION THRESHOLD	3.45
CLEARING PROPOSED	0.00
PROPOSED FOREST RETENTION	0.00
AFFORESTATION REQUIRED	2.76
ONSITE AFFORESTATION PROPOSED	1.57
TOTAL FEE-IN-LIEU	1.57
FEE-IN-LIEU	1.19

FCE # 1 - 1.32 acres
Planting Units Required: 924
Planting Units Provided: 925

Qty	Species	Size	Spacing	Total FCA Units
9	Acer rubrum - Red maple	1" cal.	15' o.c.	
8	Liriodendron tulipifera - Tulip poplar **	1" cal.	15' o.c.	
6	Platanus occidentalis - Sycamore	1" cal.	15' o.c.	
6	Quercus palustris - Pin oak	1" cal.	15' o.c.	
29	Total 1" caliper trees x 3.5 units/tree = FCA unit credit			103
85	Acer rubrum - Red maple	2-3' whip	11' o.c.	
16	Diospyros virginiana - Persimmon **	2-3' whip	11' o.c.	
40	Liriodendron tulipifera - Tulip poplar **	2-3' whip	11' o.c.	
60	Nyssa sylvatica - Black gum	2-3' whip	11' o.c.	
80	Platanus occidentalis - Sycamore	2-3' whip	11' o.c.	
24	Prunus serotina - Black cherry **	2-3' whip	11' o.c.	
32	Quercus palustris - Pin oak	2-3' whip	11' o.c.	
40	Ulmus rubra - Slippery Elm	2-3' whip	11' o.c.	
32	Viburnum prunifolium - Blackhaw **	2-3' whip	11' o.c.	
411	Total whip plantings x 2 units/tree = FCA unit credit			822
Total Unit Credit				925

FCE # 2 - 0.25 acres
Planting Units Required: 175
Planting Units Provided: 177.5

Qty	Species	Size	Spacing	Total FCA Units
3	Acer rubrum - Red maple	1" cal.	15' o.c.	
2	Liriodendron tulipifera - Tulip poplar **	1" cal.	15' o.c.	
5	Total 1" caliper trees x 3.5 units/tree = FCA unit credit			17.5
25	Acer rubrum - Red maple	2-3' whip	11' o.c.	
10	Nyssa sylvatica - Black gum	2-3' whip	11' o.c.	
15	Platanus occidentalis - Sycamore	2-3' whip	11' o.c.	
20	Quercus palustris - Pin oak	2-3' whip	11' o.c.	
10	Ulmus rubra - Slippery Elm	2-3' whip	11' o.c.	
80	Total whip plantings x 2 units/tree = FCA unit credit			160
Total Unit Credit				177.5

PLANTING SCHEDULES:

REVISION

NO.	DATE	REVISION
1	7-2-2010	REVISE SEWER LINE LOCATION

BENCHMARK ENGINEERING, INC.
ENGINEERS • LAND SURVEYORS • PLANNERS
8480 BALTIMORE NATIONAL PIKE • SUITE 418
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644
www.bel-civilengineering.com

Professional Certificate 116699 by these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 28559, Expiration Date: 7-22-2009.

OWNER: GHASSANI NESHAWAT
14445 BURNWOODS ROAD
GLENWOOD, MD 21738-9530

DEVELOPER: BURNWOODS, L.L.C.
P.O. BOX 417
ELLCOTT CITY, MD 21041-0417
(410) 465-4244

PROJECT: NESHAWAT PROPERTY
LOTS 1 TO 5, NON-BUILDABLE PRESERVATION PARCELS A, B, E & F, NON-BUILDABLE BULK PARCEL D AND BUILDABLE PRESERVATION PARCEL C

LOCATION: PARCEL MAP 21
PARCEL 138 - GRID 5
4TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

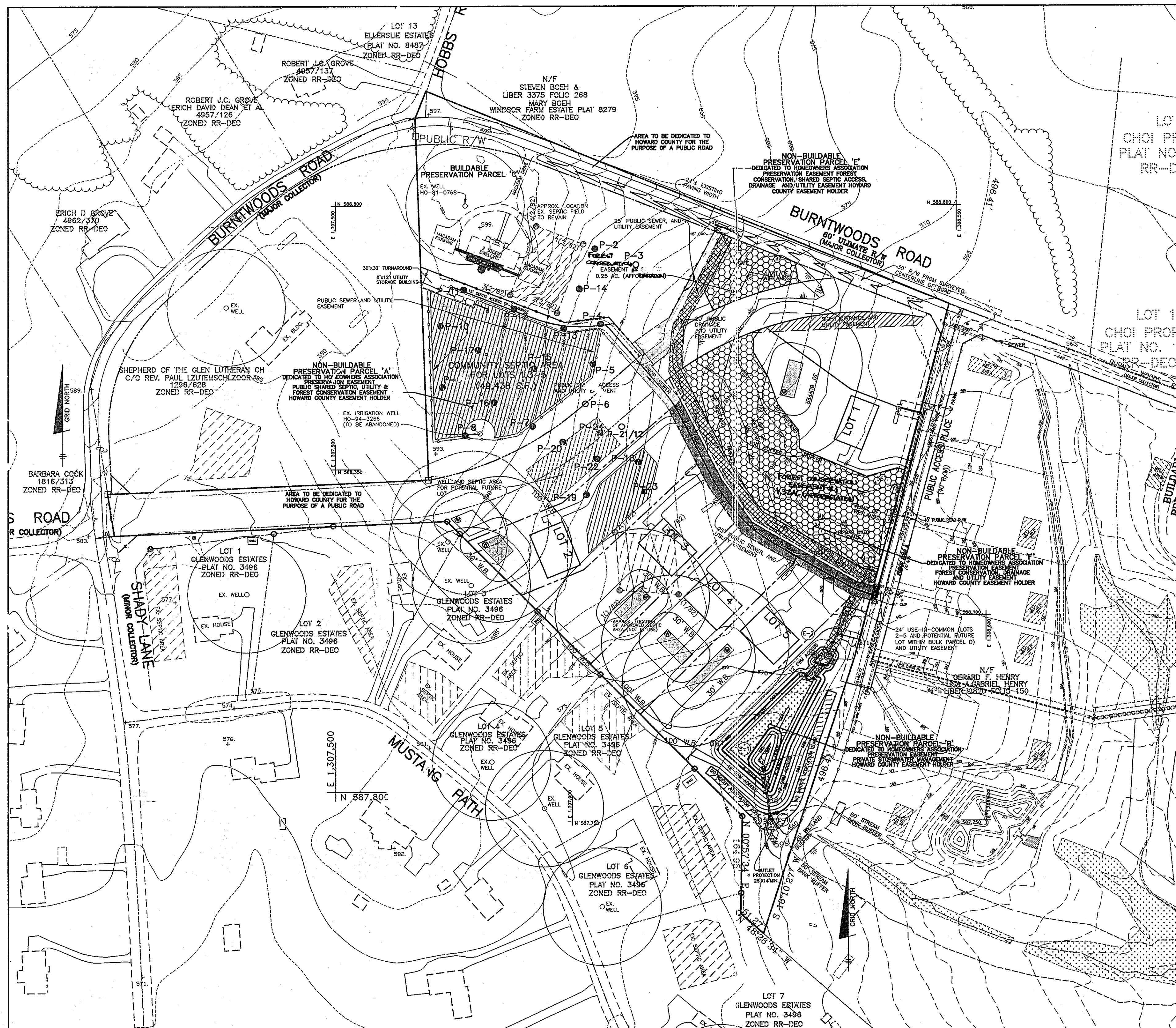
TITLE: FOREST CONSERVATION PLAN

DATE: JANUARY, 2007
JULY, 2007

PROJECT NO. 1662

Design: BFC Draft: BFC Check: DAM SCALE: AS SHOWN DRAWING 8 OF 9

F-07-121



PLAN
SCALE: 1" = 100'

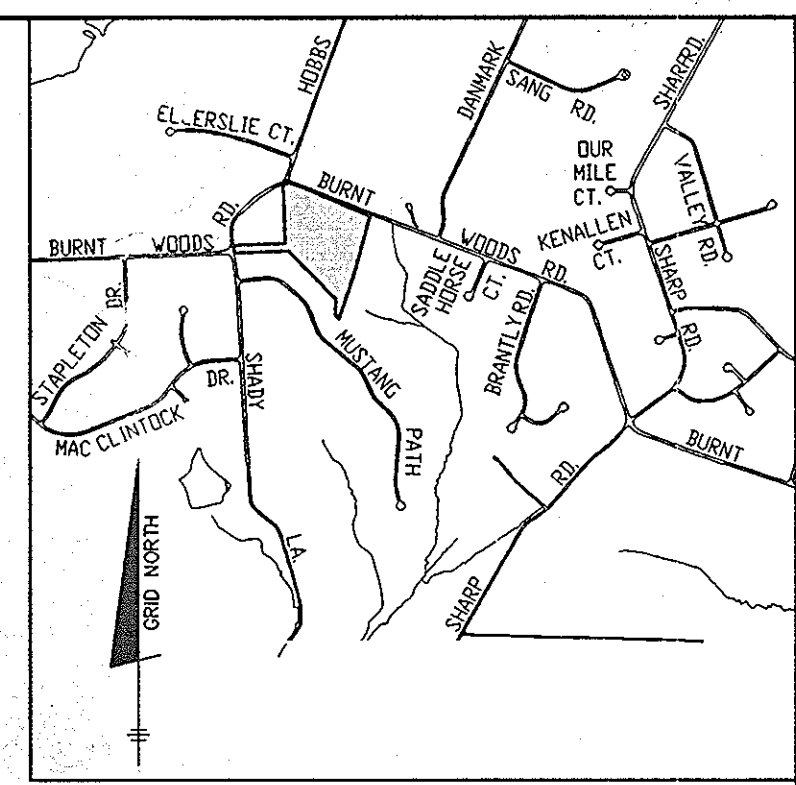
I CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF KNOWLEDGE AND BELIEF.

Donald A. Mason
DONALD A. MASON P.E. NO. 21443
PLAN PREPARER

APPROVED: DEPARTMENT OF PUBLIC WORKS
Walter Z. Walsh 8-10-07
CHIEF, BUREAU OF HIGHWAYS
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cindy Hamstra 8/14/07
CHIEF, DIVISION OF LAND DEVELOPMENT
APPROVED: FOR PRIVATE WATER AND SEWER SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
Peter Beilenson 8/14/07
COUNTY HEALTH OFFICER

GENERAL NOTES

- 1.) THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- 2.) THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT, AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWER IS AVAILABLE. THIS EASEMENT SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWER SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT VARIANCES FOR ENCROACHMENT INTO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT PLAT SHALL NOT BE REQUIRED.
- 3.) UNLESS OTHERWISE SHOWN NO WELLS OR SEWERAGE EASEMENTS ARE LOCATED WITHIN 100 FEET OF THE PROPERTY.
- 4.) EXACT LENGTH OF SEPTIC TRENCHES IS TO BE DETERMINED BY THE HEALTH DEPARTMENT AT THE TIME OF PERMIT ISSUANCE.
- 5.) TOPOGRAPHY SHOWN HEREON WAS PURCHASED FROM HOWARD COUNTY, GEOGRAPHICAL INFORMATION SYSTEMS BY BENCHMARK ENGINEERING, INC. AND FIELD VERIFIED.
- 6.) WELLS TO BE DRILLED PRIOR TO RECORD PLAT SUBMITTAL FOR SIGNATURE.
- 7.) PRIOR TO DRILLING OF THE WELLS FOR LOTS 3, 4 AND 5, THE WELL DRILLER SHALL CONTACT HOWARD COUNTY HEALTH DEPARTMENT TO SCHEDULE AN ON-SITE MEETING TO VERIFY THE LOCATION OF THE PROPOSED WELLS.



VICINITY MAP
SCALE: 1"=2000'

LEGEND

- SOILS CLASSIFICATION AbC1
- SOILS DELINEATION
- EXISTING CONTOURS 999
- PROPOSED CONTOURS 999
- LIMIT OF WETLANDS
- EXISTING WOODS LINE
- PROPOSED WOODS LINE
- EXISTING STRUCTURE
- PROPOSED STRUCTURE
- EXISTING SEPTIC FIELD
- PROPOSED SEPTIC FIELD
- EXIST. PERCOLATION TEST (PASS) ○
- EXIST. PERCOLATION TEST (FAIL) ○
- PASSED PERC TEST DUG 8/23/03 ● P-99
- FAILED PERC DUG 8/23/03 ○ P-99
- PASSED PERC TEST DUG 10/14/03 ■ P-99

SOILS LEGEND		
MAP SYMBOL	SOIL TYPE	MAPPING UNIT
Cha	B	CHESTER SILT LOAM - 0 TO 3 PERCENT SLOPES
ChB2	B	CHESTER SILT LOAM - 3 TO 8 PERCENT SLOPES - MODERATELY ERODED
CuB	B	COMUS SILT LOAM - LOCAL ALLUVIUM - 3 TO 8 PERCENT SLOPES
GhB2	C	GLENVILLE SILT LOAM - 3 TO 8 PERCENT SLOPES - MODERATELY ERODED

SOILS MAP No. 13

NO.	DATE	REVISION
1	7-2-2010	REVISE SEWER LINE LOCATION

BENCHMARK
ENGINEERS • LAND SURVEYORS • PLANNERS

ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418
ELLICOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 FAX: 410-465-6644
www.bei-civilengineering.com

OWNER: GHASSANI NESHAWAT 14445 BURNT WOODS ROAD GLENWOOD, MD 21738-9530	PROJECT: NESHAWAT PROPERTY LOTS 1 TO 5, NON-BUILDABLE PRESERVATION PARCELS A, B, E & F; NON-BUILDABLE BULK PARCEL D AND BUILDABLE PRESERVATION PARCEL C
DEVELOPER: BURNTWOODS, L.L.C. P.O. BOX 417 ELLICOTT CITY, MD 21041-0417 (410) 465-4244	LOCATION: PARCEL 133 - GRID 5 4th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE: REVISED PERCOLATION CERTIFICATION PLAN	DATE: APRIL 2007
Design: BFC Draft: BFC Check: DAM	PROJECT NO. 1662 DRAWING 9 OF 9